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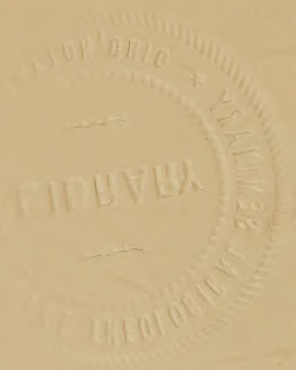

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INTRODUCTION

No student or teacher of American history, however he begins, ends with the conviction that the story of material development, economic conflict, conquest, and organization is all of American history or that in the teaching and study of it every novice must work from the documents and discover anew what the specialist has already formulated and exposed. It is equally true that, however one begins, he ends with the conviction that in the history of no country are economic factors so apparent and so necessary to understand and that the student who takes everything second-hand from text or teacher misses being a real student of real things. A sound, well-balanced interpretation of American history and a practicable and stimulating technique in both teaching and study land one, in the end, somewhere on middle ground between the two extremes that are implicit or expressed in the opening sentences of this paragraph. No teacher can ignore the basic facts of economic history, and no student has had a taste of history who has not read a page of the first-hand records.

The theoretical analysis and the answer to this problem are simple. It is easy to say, "Read this author who stresses the economic factors, or consult the report of Hamilton or Gallatin or the statutes or the census or a magazine article." Many syllabi and bibliographies in texts are made imposing with futile references to whole libraries. What is the wise teacher, the conscientious student, and, I may add, the harried librarian to do about it? Unless there is a practical answer, nothing will be done, or so much will be attempted that the result is confusion for the teacher and student, while the librarian sees whole sets of valuable and irreplaceable periodicals, documents, and works of statesmen made almost valueless because one volume is destroyed by classes who have been assigned ten pages in it.

Something must be done about it. Very well. What shall it be? Here in this volume you have an attempt at one practicable solution for those who teach or study American history, whether economic or political.

Two scholars in the field of economic history, each working in that part of the field with which he has most concerned himself, have coöperated. The result is not a source book in the ordinary sense, but a collection of readings that includes pertinent and comprehen-

sible sources plus excerpts from those writers who have written with either source or observed facts as their guide.

The selective process has necessarily been a rigid one. To display the bases and something of the superstructure and organization of economic life in the United States and something of the dominant forces behind structure and organization, to do it genetically and over the whole period of our national life, is an exacting task. Only those who have attempted it can fully appreciate how difficult it is. If Professors Flügel and Faulkner had not had classroom testing to guide them, they would have been lost before they started. Now that they have done this difficult task, it ought to be easier for anyone teaching general American history to make clear the importance of the economic factor, and for anyone teaching American economic history to bring his students face to face with vitalizing material made easily available.

Getting a student to react intelligently when face to face with facts is the main business of formal education. If you want to put him where he must attempt it, confront him with just such appropriate material as these two scholars and teachers have enabled you to put in his hands.

GUY STANTON FORD.

PREFACE

The sources covering the economic and social history of the United States, the raw materials from which the historian derives his narrative account, are very extensive. Especially during the first few decades of the nation's independent existence, numerous observers inquired—not always from friendly motives—into our economic and social order; extensive travel in America was not the usual thing, and experiences were therefore set down in great detail. Of this mass of early descriptive literature, as well as of later statistical compilations and current comment, every student of history should have some knowledge; and this book has been compiled in the hope that it may stimulate further delving into the sources. For this reason the selections have been taken, with few exceptions, from books and other printed materials readily available in the larger university and college libraries.

Many valuable suggestions were received by the editors from Dean Guy Stanton Ford. The assistance rendered by Mrs. A. L. Collins in preparing the early chapters of the volume for the press, and by Ethel W. Faulkner in the selection and preparation of the latter chapters, is gratefully acknowledged. The first of the undersigned has been responsible for the material contained in Chapters I-XII inclusive, and for the outline and bibliography; and the second for the remainder of the volume.

Felix Flügel
Harold Underwood Faulkner

July, 1929.

Part I

THE REVOLUTIONARY WAR AND THE STRUGGLE FOR ECONOMIC INDEPENDENCE

1775-1820

CHAPTER I

SOME ECONOMIC ASPECTS OF THE REVOLUTIONARY WAR

ON VARIOUS occasions the colonists had formally expressed their opposition to the Colonial policy of the mother country. The Congress assembled at Philadelphia reiterated the numerous grievances of the colonists and justified the resort to arms (July 6, 1775) (No. 1). Within a short time after the outbreak of the war a serious economic depression swept over the country. New England lost heavily from the destruction of the fisheries; the indigo planters were sorely affected by the withdrawal of bounties; and the tobacco and rice growers suffered for want of an adequate market. It was not long, however, until the country adjusted itself to the new conditions which the war had produced. With English competition largely eliminated and with a steadily increasing demand for American manufactures, industry soon forged ahead. Despite the efforts of Great Britain to destroy the commerce of the Colonies, American products in not inconsiderable amounts found their way to the European markets. Much of this trade was carried in Dutch and French vessels, although American merchantmen were by no means inactive. Since the needs of the government steadily increased as the war progressed, it was found extremely difficult, especially in view of the deplorable financial condition of the Continental Congress and of the states, to obtain sufficient supplies (No. 2). This condition was partly due to the inability of the Continental Congress to introduce a comprehensive system of taxation and an unwillingness on the part of the states to resort to this method of securing revenue. To borrow funds was equally difficult in view of the fact that the surplus wealth of the country was as yet small and the credit of the nation not sufficiently established. The issuance of bills of credit (treasury notes) seemed, therefore, the easiest and quickest device for securing revenue and was freely resorted to both by the Continental Congress and by the states. The government also attempted to secure supplies and money through requisitions, both in money and in kind, through domestic and foreign loans, through a public lottery, and through the confiscation of property belonging to

British sympathizers (Nos. 3-5). The lack of adequate banking facilities further complicated the financing of the war. This difficulty was partly overcome by the organization of the *Bank of Pennsylvania* and later (1781) by the chartering of the *Bank of North America* (No. 6).

In the treaty of peace following the conclusion of the war Great Britain acknowledged the independence of the United States; moreover, Americans received the right to fish in the waters along the banks and coast of Labrador and Nova Scotia, also the privilege of free navigation on the Mississippi River (No. 7).[1]

The Necessity of Taking up Arms

1. *A Declaration of the Representatives of the United Colonies of North-America, now met in Congress at Philadelphia, setting forth the causes and necessity of their taking up arms* [*July 6, 1775*].[2]

If it was possible for men, who exercise their reason to believe, that the divine Author of our existence intended a part of the human race to hold an absolute property in, and an unbounded power over others, marked out by his infinite goodness and wisdom, as the objects of a legal domination never rightfully resistible, however severe and oppressive, the inhabitants of these colonies might at least require from the parliament of Great-Britain some evidence, that this dreadful authority over them, has been granted to that body. But a reverence for our great Creator, principles of humanity, and the dictates of common sense, must convince all those who reflect upon the subject, that government was instituted to promote the welfare of mankind, and ought to be administered for the attainment of that end. The legislature of Great-Britain, however, stimulated by an inordinate passion for a power not only unjustifiable, but which they know to be peculiarly reprobated by the very constitution of that kingdom, and desperate of success in any mode of contest, where regard should be had to truth, law, or right, have at length, deserting those, attempted to effect their cruel and impolitic purpose of enslaving these colonies by violence, and have thereby rendered it necessary for us to close with their last appeal from reason to arms.—Yet, however blinded that assembly may be, by their intemperate rage for unlimited domination, so to slight justice and the opinion of mankind, we esteem ourselves bound by obligations of respect to the rest of the world, to make known the justice of our cause.

Our forefathers, inhabitants of the island of Great-Britain, left their native land, to seek on these shores a residence for civil and religious freedom. At the expense of their blood, at the hazard of their fortunes, without the least charge to the country from which they removed, by

[1] The right of navigation on the Mississippi was not definitely settled until the Louisiana Purchase in 1803.

[2] *Journals* of [Continental] Congress (ed. 1800), vol. i, pp. 134–139.

unceasing labour, and an unconquerable spirit, they effected settlements in the distant and inhospitable wilds of America, then filled with numerous and warlike nations of barbarians.—Societies or governments, vested with perfect legislatures, were formed under charters from the crown, and an harmonious intercourse was established between the colonies and the kingdom from which they derived their origin. The mutual benefits of this union became in a short time so extraordinary, as to excite astonishment. It is universally confessed, that the amazing increase of the wealth, strength, and navigation of the realm, arose from this source; and the minister, who so wisely and successfully directed the measures of Great-Britain in the late war, publicly declared, that these colonies enabled her to triumph over her enemies.—Towards the conclusion of that war, it pleased our sovereign to make a change in his counsels.—From that fatal moment, the affairs of the British empire began to fall into confusion, and gradually sliding from the summit of glorious prosperity, to which they had been advanced by the virtues and abilities of one man, are at length distracted by the convulsions, that now shake it to its deepest foundations.—The new ministry finding the brave foes of Britain, though frequently defeated, yet still contending, took up the unfortunate idea of granting them a hasty peace, and of then subduing her faithful friends.

These devoted colonies were judged to be in such a state, as to present victories without bloodshed, and all the easy emoluments of statuteable plunder.—The uninterrupted tenor of their peaceable and respectful behaviour from the beginning of colonization, their dutiful, zealous, and useful services during the war, though so recently and amply acknowledged in the most honourable manner by his majesty, by the late king, and by parliament, could not save them from the meditated innovations.—Parliament was influenced to adopt the pernicious project, and assuming a new power over them, have in the course of eleven years, given such decisive specimens of the spirit and consequences attending this power, as to leave no doubt concerning the effects of acquiescence under it. They have undertaken to give and grant our money without our consent, though we have ever exercised an exclusive right to dispose of our own property; statutes have been passed for extending the jurisdiction of courts of admiralty, and vice-admiralty beyond their ancient limits; for depriving us of the accustomed and inestimable privilege of trial by jury, in cases affecting both life and property; for suspending the legislature of one of the colonies; for interdicting all commerce to the capital of another; and for altering fundamentally the form of government established by charter, and secured by acts of its own legislature solemnly confirmed by the crown; for exempting the "murderers" of colonists from legal trial, and in effect, from punishment; for erecting in a neighbouring province, acquired by the joint arms of Great-Britain and America, a despotism dangerous to our very existence; and for quartering soldiers upon the colonists in time of profound peace. It has also

been resolved in parliament, that colonists charged with committing certain offences, shall be transported to England to be tried.

But why should we enumerate our injuries in detail? By one statute it is declared, that parliament can "of right make laws to bind us in all cases whatsoever." What is to defend us against so enormous, so unlimited a power? Not a single man of those who assume it, is chosen by us; or is subject to our controul or influence; but, on the contrary, they are all of them exempt from the operation of such laws, and an American revenue, if not diverted from the ostensible purposes for which it is raised, would actually lighten their own burdens in proportion, as they increase ours. We saw the misery to which such despotism would reduce us. We for ten years incessantly and ineffectually besieged the throne as supplicants; we reasoned, we remonstrated with parliament, in the most mild and decent language.

Administration sensible that we should regard these oppressive measures as freemen ought to do, sent over fleets and armies to enforce them. The indignation of the Americans was roused, it is true; but it was the indignation of a virtuous, loyal, and affectionate people. A Congress of delegates from the United Colonies was assembled at Philadelphia, on the fifth day of last September. We resolved again to offer an humble and dutiful petition to the king, and also addressed our fellow-subjects of Great-Britain. We have pursued every temperate, every respectful measure: we have even proceeded to break off our commercial intercourse with our fellow-subjects, as the last peaceable admonition, that our attachment to no nation upon earth should supplant our attachment to liberty.—This, we flattered ourselves, was the ultimate step of the controversy: but subsequent events have shewn, how vain was this hope of finding moderation in our enemies.

Several threatening expressions against the colonies were inserted in his majesty's speech; our petition, tho' we were told it was a decent one, and that his majesty had been pleased to receive it graciously, and to promise laying it before his parliament, was huddled into both houses among a bundle of American papers, and there neglected. The lords and commons in their address, in the month of February, said, that "a rebellion at that time actually existed within the province of Massachusetts-Bay; and that those concerned in it, had been countenanced and encouraged by unlawful combinations and engagements, entered into by his majesty's subjects in several of the other colonies; and therefore they besought his majesty, that he would take the most effectual measures to inforce due obedience to the laws and authority of the supreme legislature."—Soon after, the commercial intercourse of whole colonies, with foreign countries, and with each other, was cut off by an act of parliament; by another several of them were intirely prohibited from the fisheries in the seas near their co[a]sts, on which they always depended for their sustenance; and large reinforcements of ships and troops were immediately sent over to general Gage.

Fruitless were all the entreaties, arguments, and eloquence of an illustrious band of the most distinguished peers, and commoners, who nobly and stren[u]ously asserted the justice of our cause, to stay, or even to mitigate the heedless fury with which these accumulated and unexampled outrages were hurried on.—Equally fruitless was the interference of the city of London, of Bristol, and many other respectable towns in our favour. Parliament adopted an insidious manoeuvre calculated to divide us, to establish a perpetual auction of taxations where colony should bid against colony, all of them uninformed what ransom would redeem their lives; and thus to extort from us, at the point of the bayonet, the unknown sums that should be sufficient to gratify, if possible to gratify, ministerial rapacity, with the miserable indulgence left to us of raising, in our own mode, the prescribed tribute. What terms more rigid and humiliating could have been dictated by remorseless victors to conquered enemies? In our circumstances to accept them, would be to deserve them.

Soon after the intelligence of these proceedings arrived on this continent, general Gage, who in the course of the last year had taken possession of the town of Boston, in the province of Massachusetts-Bay, and still occupied it i[a]s a garrison, on the 19th day of April, sent out from that place a large detachment of his army, who made an unprovoked assault on the inhabitants of the said province, at the town of Lexington, as appears by the affidavits of a great number of persons, some of whom were officers and soldiers of that detachment, murdered eight of the inhabitants, and wounded many others. From thence the troops proceeded in warlike array to the town of Concord, where they set upon another party of the inhabitants of the same province, killing several and wounding more, until compelled to retreat by the country people suddenly assembled to repel this cruel aggression. Hostilities, thus commenced by the British troops, have been since prosecuted by them without regard to faith or reputation.—The inhabitants of Boston being confined within that town by the general their governor, and having, in order to procure their dismission, entered into a treaty with him, it was stipulated that the said inhabitants having deposited their arms with their own magistrates, should have liberty to depart, taking with them their other effects. They accordingly delivered up their arms, but in open violation of honour, in defiance of the obligation of treaties, which even savage nations esteemed sacred, the governor ordered the arms deposited as aforesaid, that they might be preserved for their owners, to be seized by a body of soldiers; detained the greatest part of the inhabitants in the town, and compelled the few who were permitted to retire, to leave their most valuable effects behind.

By this perfidy wives are separated from their husbands, children from their parents, the aged and the sick from their relations and friends, who wish to attend and comfort them; and those who have

been used to live in plenty and even elegance, are reduced to deplorable distress.

The general, further emulating his ministerial masters, by a proclamation bearing date on the 12th day of June, after venting the grossest falsehoods and calumnies against the good people of these colonies, proceeds to "declare them all, either by name or description, to be rebels and traitors, to supersede the course of the common law, and instead thereof to publish and order the use and exercise of the law martial."—His troops have butchered our countrymen, have wantonly burnt Charlestown, besides a considerable number of houses in other places; our ships and vessels are seized; the necessary supplies of provisions are intercepted, and he is exerting his utmost power to spread destruction and devastation around him.

We have received certain intelligence, that general Carleton, the governor of Canada, is instigating the people of that province and the Indians to fall upon us; and we have but too much reason to apprehend, that schemes have been formed to excite domestic enemies against us. In brief, a part of these colonies now feel, and all of them are sure of feeling, as far as the vengeance of administration can inflict them, the complicated calamities of fire, sword, and famine. We are reduced to the alternative of chusing an unconditional submission to the tyranny of irritated ministers, or resistance by force.—The latter is our choice.—We have counted the cost of this contest, and find nothing so dreadful as voluntary slavery.—Honour, justice, and humanity, forbid us tamely to surrender that freedom which we received from our gallant ancestors, and which our innocent posterity have a right to receive from us. We cannot endure the infamy and guilt of resigning succeeding generations to that wretchedness which inevitably awaits them, if we basely entail hereditary bondage upon them.

Our cause is just. Our union is perfect. Our internal resources are great, and, if necessary, foreign assistance is undoubtedly attainable.—We gratefully acknowledge, as signal instances of the Divine favour towards us, that his Providence would not permit us to be called into this severe controversy, until we were grown up to our present strength, had been previously exercised in warlike operation, and possessed of the means of defending ourselves. With hearts fortified with these animating reflections, we most solemnly, before God and the world, *declare*, that, exerting the utmost energy of those powers, which our beneficent Creator hath graciously bestowed upon us, the arms we have been compelled by our enemies to assume, we will, in defiance of every hazard, with unabating firmness and persever-[a]nce, employ for the preservation of our liberties; being with one mind resolved to die freemen rather than to live slaves.

Lest this declaration should disquiet the minds of our friends and fellow-subjects in any part of the empire, we assure them that we mean not to dissolve that union which has so long and so happily subsisted between us, and which we sincerely wish to see restored.—

Necessity has not yet driven us into that desperate measure, or induced us to excite any other nation to war against them.—We have not raised armies with ambitious designs of separating from Great-Britain, and establishing independent states. We fight not for glory or for conquest. We exhibit to mankind the remarkable spectacle of a people attacked by unprovoked enemies, without any imputation or even suspicion of offence. They boast of their privileges and civilization, and yet proffer no milder conditions than servitude or death.

In our own native land, in defence of the freedom that is our birth-right, and which we ever enjoyed till the late violation of it—for the protection of our property, acquired solely by the honest industry of our fore-fathers and ourselves, against violence actually offered, we have taken up arms. We shall lay them down when hostilities shall cease on the part of the aggressors, and all danger of their being renewed shall be removed, and not before.

With an humble confidence in the mercies of the supreme and impartial Judge and Ruler of the Universe, we most devoutly implore his divine goodness to protect us happily through this great conflict, to dispose our adversaries to reconciliation on reasonable terms, and thereby to relieve the empire from the calamities of civil war.

Economic Adjustments Following the Outbreak of the War

2.[1] As the United Colonies were now about entering upon the sanguinary struggle for independence, in which all the energies of the people were absorbed in sustaining the conflict, it would be in vain to look for much progress in the useful arts. The infant manufactures of the country did not escape the baleful influences which a state of warfare always exerts upon industry. Many young and feeble enterprises were entirely ruined. But the mechanical genius of the country did not slumber, and the exigency of the occasion created some new branches and stimulated others, while it developed unusual examples of ingenuity and enterprise in the arts, as it did remarkable talents in the field and in council.

In the non-intercourse agreements and the necessities of the war, were laid the foundation of that superstructure of mechanical industry which speedily rose to fair proportions after the peace. The flourishing commerce of the Colonies was, however, totally ruined. This Mr. Burke characterized as out of all proportion beyond the numbers of the people, and that with the mother land, within less than £500,000 of being equal to what England carried on at the beginning of the century with the whole world. He cites the case of Pennsylvania, which, in 1704, called for only £11,459 in value of British commodities, but in

[1] Bishop, J. Leander. *A History of American Manufactures from 1608 to 1860,* vol. i, pp. 389-393. Philadelphia, 1861.

Editor's Note.—This history contains an accurate account of American manufactures. It commends itself primarily as a work of reference. The first two volumes were written by Bishop, the third by others.

1772 it took nearly fifty times as much, or £507,909 worth, nearly equal to the exports to all the Colonies together at the first period. The Colony trade of Great Britain had increased from one-sixteenth to nearly one-third of the whole. The importations were particularly heavy in 1770 and the three following years, and amounted, as Mr. Glover stated to the House of Commons in 1775, to ten and a half millions sterling in the three years, or three and a half millions at the annual medium. He estimated the Linen sent from Great Britain and Ireland to amount to £700,000 per annum. The importations in the foregoing years exceeded the wants of the Colonies, and through the embarrassments thereby created, the debts of the American merchants, who bought largely on credit, were not as promptly paid, when due, as they had been in previous years. The indebtedness of New England was stated at near one million sterling. The Colonies were, in consequence, charged in some quarters with a desire to evade payment—a charge which was refuted by the testimony of merchants in the Colonial trade at the bar of the House, and by the subsequent good faith of American merchants. Of six millions due in December, 1774, four millions were paid in the next twelve months, even when a separation seemed inevitable, although the restraints upon their trade and fisheries were certainly not calculated to facilitate payment. That the sudden interruption of this large amount of importation should cause serious inconvenience, so soon as the accumulated stock was exhausted, might reasonably be expected. With all our present vast productive power, it is fair to presume that a total exclusion of foreign merchandise would still be deeply felt. It is true that all the measures of Congress and the Conventions did not prevent a considerable amount of British goods from being landed and sold.

There is no means of arriving at any estimate of the aggregate value of the Colonial manufactures in all or any single branch at the commencement of the Revolution. The household industry of the New England Provinces, and of some parts of the middle Colonies, was nearly or quite equal to the ordinary wants of the inhabitants for clothing. The prompt consent and faithful adherence to the non-intercourse agreements indicate a general confidence in their inherent ability to supply the deficiency created by the suspension of trade. Their habitual and compulsory frugality alone carried them through the trying occasion.

But the scarcity and dearness of Clothing and camp furniture, particularly of woolens suitable for the use of the army, was early experienced, and continued throughout the war to embarrass the commissariat department, to impair the health and *morale* of the soldiery, and at times even endangered its subordination. Congress was in consequence forced to make frequent appeals to the people to increase their supplies of wool and other materials, and to promote the manufacture of Cloth for the supply of their destitute country-

men who were fighting the battles of freedom. In Nov. 1775, it resolved that clothing be provided for the army by the continent, to be paid for by stopping $1\frac{2}{3}$ dollars per month out of the soldiers' pay; that as much as possible of the Cloth be dyed brown, the distinction of the regiments to be made in the facings; and that a man who brought into the camp a good new blanket, should be allowed two dollars therefor, and be at liberty to take it away after the campaign. In the following March, the several Assemblies, conventions, and committees of safety, correspondence, and inspection were recommended to use their utmost endeavors to promote the culture of hemp, flax, and cotton, and the growth of wool in the United States; to take the earliest means for erecting and establishing in each Colony a Society for the improvement of Agriculture, Arts, Manufactures, and Commerce, and to maintain a correspondence between such societies, that the rich and numerous natural advantages of the country for supporting its inhabitants might not be neglected. They were further recommended to consider ways and means of introducing the manufactures of duck, sail-cloth, and steel where they were not already understood, and of encouraging, increasing, and improving them where they were. Each Colony was called upon, in June, to furnish a suit of clothes—of which the waistcoat and breeches might be of deer leather, if to be had on reasonable terms—a blanket, felt hat, two shirts, two pair hose, and two pair shoes for each soldier in the army, to be paid for by Congress. In July the commissary was granted a quantity of gunpowder with which to purchase deer-skins for breeches; and the secret committee was directed to fall upon ways and means of procuring a further supply of deer-skins for the like purpose from Georgia and South Carolina. At the same time, John Griffith, "an experienced artificer in making and dressing fullers' shears," was, on petition of the inhabitants of Chester County, Pennsylvania, released from service and ordered to return home to follow his trade. Toward the end of the year, General Washington was desired to order agents to be sent into each State to buy up linens and other clothing and tent-cloth. But notwithstanding orders had been issued in the beginning of the year to import considerable quantities of woolens and other Cloth from Europe, and Philadelphia was twice called upon to furnish blankets, which were not to be purchased in the stores, and even to sell its awnings for tents, of which there was scarcely one in the army, the sufferings of the troops during the winter were extreme. A large proportion of the clothing of the soldiers was linen, which was a poor defense against the rigors of a winter campaign. The deficiency of woolen materials in the manufactures of the country was apparent in the contributions for the army. The Commissioners in France were directed, in the beginning of the next year, to make purchases of suitable clothing and blankets, and each State was assessed for a supply of blankets. In September, the Executive Council of Pennsylvania was advised to take possession of any linens, blankets, or

other woolens found in the stores and warehouses, and give certificates of their value.

A letter from Samuel Wetherill, Jr., to the Board of War, in May, informs them that, in consequence of the unexpected rise in the price of wool and labor, he would be unable to comply with a contract made for a supply of Cloth at a time when he supposed prices were at the highest. He had a factory, including dye-house, fulling-mill, etc., in South Alley, between Market and Arch and Fifth and Sixth streets, where he carried on the manufacture of woolens, and soon after, if not at that time, of cottons and chemical products. Wool being then 7s. 6d. a pound, with a prospect of its becoming 10s., he could not furnish for less than 27s. 6d. such Cloth as he had engaged to supply at 20s. the yard. He rendered an account the next month for Cloth furnished, including some samples of superfine red and coating; but the extreme scarcity of wool, he says, almost discouraged him from proceeding with the woolen branch of his business. Those who had engaged to sell him wool at 7s. 6d., thought it too cheap, and his spinners and weavers in each branch had doubled their wages. He could continue to make it, however, at an adequate price.

These prices, which were doubtless provincial currency, and the fact that all the operations of carding, spinning, shearing, etc., were manual operations, and that forty to fifty cents was the usual price for fulling and dressing a yard of Cloth, enable us to comprehend that, with an empty exchequer, and doubtful credit, Congress found no little inconvenience in providing supplies of clothing and other necessaries. All its efforts were inadequate to a comfortable provision, and, in November of that year, the Director-General of Hospitals was authorized to make up the measure of comfort which the want of blankets and clothing required for the sick, by the erection of stoves if found necessary. The several States were earnestly called upon to make additional provision for the approaching winter. Notwithstanding the strong recommendations of Congress at the outset, that no advantage should be taken of the scarcity likely to arise, men were found heartless enough to charge the deputy Clothier-General ten to eighteen hundred per cent. for clothing for the Continental army, and even to refuse to deliver it at that price until the cash was paid. Congress was forced to recommend the legislature of the State in which it occurred to seize the goods, which would be paid for at a reasonable price. Cases of extortion having become too general, the several States were also advised to enact laws, empowering the seizure, for the use of the army, of all woolen cloths, blankets, linens, shoes, stockings, hats, and other necessary clothing in the possession of any persons, not foreigners, for sale, to be paid for at a stated price by drafts on the Clothier-General. They were also recommended to employ a sufficient number of manufacturers and tradesmen to supply the clothing required by their respective battalions, exempting them from military duty, and to appoint persons to collect cotton, wool, flax,

leather, etc., for that purpose, at stipulated prices. The practice of those in the several States, who, regardless of the claims of humanity or love of country, in a time of scarcity, made large gains "by oppressive sharping and extortion," to the injury of private families and the public service, was denounced in caustic terms, and the severe expedient was recommended to all the States of enacting stringent laws for its punishment and affixing the brand of infamy upon the perpetrators.

Financing the Revolutionary War

3.[1] . . . It early occurred to the founders of the American empire that the established revenues of Great Britain must eventually overbalance the sudden and impetuous sallies of men contending for freedom, on the spur of the occasion, and without the permanent means of defence; but how to remedy the evil puzzled their wisest politicians. Gold and silver, as far as was known, had not a physical existence in the country in any quantity equal to the demands of war, nor could they be procured from abroad, as the channels of commerce had been previously shut, by the voluntary association of Congress to suspend foreign trade. America having never been much taxed in any direct way, and being without established governments, and especially as she was contending against what was lately lawful authority, could not immediately proceed to taxation. Besides, as the contest was on the subject of taxation, the laying on of taxes adequate to the exigencies of war, even though it had been practicable, would have been impolitic. The only plausible expedient in their power to adopt, was the emission of bills of credit representing specie, under a public engagement to be ultimately sunk by equal taxes, or exchanged for gold or silver. This practice had been familiar from the first settlement of the Colonies, and under proper restrictions had been found highly advantageous. Their resolution to raise an army in June 1775, was therefore followed by another to emit bills of credit, to the amount of two millions of dollars. To that sum on the 25th of the next month, it was resolved to add another million. For their redemption they pledged the confederated Colonies, and directed each Colony to find ways and means to sink its proportion and quota, in four annual payments, the first to be made on or before the last of November 1779. That time was fixed upon from an expectation that, previous to its arrival, the contest would be brought to a conclusion. On the 29th of November 1775, an estimate having been made by Congress of the public expences

[1] Ramsay, David, *The History of the American Revolution,* vol. ii, pp. 125-136. London, 1793.

Editor's Note.—David Ramsay (1749-1815) was a graduate of Princeton who enlisted in the Revolutionary Army as a surgeon, served in the Continental Congress and in the South Carolina Senate. His wide acquaintance, good memory, impartiality, and flare for collecting sources make his work a rather exceptional piece of contemporary history.

already incurred, or likely to be incurred, in carrying on their defence till the 10th of June 1776, it was resolved to emit a farther sum of three millions of dollars, to be redeemed as the former by four annual payments, the first to be made on or before the last day of November 1783. It was at the same time determined, that the quotas of bills to be redeemed by each Colony should be in a relative proportion to their respective numbers of inhabitants. This estimate was calculated to defray expenses to the 10th of June, 1776, on the idea that an accommodation would take place before that time. Hitherto all arrangements, both for men and money, were temporary, and founded on the supposed probability of a reconciliation. Early in 1776, Congress obtained information that Great Britain had contracted for 16,000 foreign mercenaries, to be sent over for the purpose of subduing America. This enforced the necessity of extending their plan of defence beyond the 10th of the next June. They therefore on the 17th of February 1776, ordered four millions of dollars to be emitted, and on the 9th of May and the 22d of July following, emitted ten millions more on the same security. Such was the animation of the times, that these several emissions, amounting in the aggregate to twenty millions of dollars, circulated for several months without any depreciation, and commanded the resources of the country for public service, equally with the same sum of gold or silver. The United States derived for a considerable time, as much benefit from this paper creation of their own, though without any established funds for its support or redemption, as would have resulted from a free gift of as many Mexican dollars. While the Ministry of England were puzzling themselves for new taxes, and funds on which to raise their supplies, Congress raised theirs by resolutions, directing paper of no intrinsic value to be struck off, in form of promissory notes. But there was a point both in time and quantity, beyond which this congressional alchymy ceased to operate. That time was about 18 months from the date of their first emission, and that quantity about 20 millions of dollars.

Independence being declared in the second year of the war, and the object for which arms were at first assumed being changed, it was obvious that more money must be procured, and equally so that if bills of credit were multiplied beyond a reasonable sum for circulation, they must necessarily depreciate. It was therefore on the 3d of October 1776 resolved to borrow five millions of dollars, and in the month following a lottery was set on foot for obtaining a farther sum on loan. The expenses of the war were so great, that the money arising from both, though considerable, was far short of a sufficiency. The rulers of America thought it still premature to urge taxation; they therefore reiterated the expedient of farther emissions. The ease with which the means of procuring supplies was furnished by striking off bills of credit, and the readiness of the people to receive them, prompted Congress to multiply them beyond the limits of prudence. A diminu-

tion of their value was the unavoidable consequence. This at first was scarcely perceivable, but it daily increased. The zeal of the people nevertheless so far overbalanced the nice mercantile calculations of interest, that the campaigns of 1776 and 1777 were not affected by the depreciation of their paper currency. Congress foresaw that this could not long be the case. It was therefore on the 22d of November 1777 recommended to the several States, to raise by taxes the sum of five millions of dollars, for the service of the year 1778.

Previously to this it had been resolved to borrow larger sums, and for the encouragement of lenders, it was agreed to pay the interest which should accrue thereon by bills of exchange, payable in France, out of monies borrowed there for the use of the United States.[1] This tax unfortunately failed in several of the States. From the impossibility of procuring a sufficiency of money either from loans or taxes, the old expedient of farther emissions was reiterated; but the value decreased as the quantity increased. Congress anxious to put a stop to the increase of their bills of credit, and to provide a fund for reducing what were issued, called upon the States on the 1st of January 1779, to pay into the continental treasury their respective quotas of fifteen millions of dollars for the service of that year, and of six millions annually from and after the year 1779, as a fund for reducing their early emissions and loans. Such had been the mistaken ideas which originally prevailed of the duration of the contest, that though the war was raging, and the demands for money unabated, yet the period was arrived which had been originally fixed upon for the redemption of the first emissions of Congress.

In addition to these 15 millions called for on the 1st of January 1779, the States were on the 21st of May following called upon to furnish, for public service within the current year, their respective quotas of 45 millions of dollars. Congress wished to arrest the growing depreciation, and therefore called for taxes in large sums, proportioned to the demands of the public, and also to the diminished value of their bills. These requisitions, though nominally large, were by no means sufficient. From the fluctuating state of the money, it was impossible to make any certain calculations, for it was not two days of the same value. A sum which, when demanded, would have purchased a sufficiency of the commodities wanted for the public

[1] Editor's Note.—The proceeds from foreign loans were as follows:

Year	France	Spain	Holland
1777	$ 181,500		
1778	544,500		
1779	181,500		
1780	726,000		
1781	1,737,763	$128,804	
1782	1,892,237	45,213	$ 720,000
1783	1,089,000		584,000
Total	$6,352,500	$174,017	$1,304,000

service, was very inadequate when the collection was made, and the money lodged in the treasury. The depreciation began at different periods in different States; but became general about the middle of the year 1777, and progressively increased for three or four years. Towards the end of 1777, the depreciation was about two or three for one; in 1778 it advanced from two or three for one to five or six for one; in 1779, from five or six for one to 27 or 28 for one; in 1780, from 27 or 28 for one to 50 or 60 for one, in the first four or five months. Its circulation was afterwards partial, but where it passed it soon depreciated to 150 for one. In some few parts it continued in circulation for the first four or five months of 1781, but in this latter period many would not take it at any rate, and they who did, received it at a depreciation of several hundreds for one.

As there was a general clamor on account of the floods of money, which at successive periods had deluged the States, it was resolved in October 1779 that no farther sum should be issued on any account whatever than what, when added to the present sum in circulation, would in the whole be equal to 200 millions of dollars. It was at the same time resolved, that Congress should emit only such a part of the sum wanting to make up 200 millions, as should be absolutely necessary for the public exigencies, before adequate supplies could be otherwise obtained, relying for such supplies on the exertions of the several States. This was forcibly represented in a circular letter from Congress to their constituents and the States were earnestly entreated to prevent that deluge of evils which would flow from their neglecting to furnish adequate supplies for the wants of the confederacy. The same circular letter stated the practicability of redeeming all the bills of Congress at par with gold and silver, and rejected with indignation the supposition that the States would ever tarnish their credit by violating public faith. These strong declarations in favour of the paper currency deceived many to repose confidence in it to their ruin. Subsequent events compelled Congress to adopt the very measure in 1780, which in the preceding year they had sincerely reprobated.

From the non-compliance of the States, Congress was obliged in a short time after the date of their circular letter to issue such a farther quantity, as, when added to previous emissions, made the sum of 200 millions of dollars. Besides this immense sum, the paper emissions of the different States amounted to many millions;[1] which mixed with the continental money, and added to its depreciation. What was of little value before, now became of less. The whole was soon expended, and yet from its increased depreciation the immediate wants of the army were not supplied. The source which for five years had enabled Congress to keep an army in the field being exhausted, General Washington was reduced for some time to the alternative of disbanding his troops, or of supplying them by a military force. He preferred the

[1] Editor's Note.—State issues amounted to $209,524,776; of this total Virginia issued $128,441,000 and both North and South Carolina in excess of $33,000,000 each

latter, and the inhabitants of New York and New Jersey, though they felt the injury, saw the necessity, and patiently submitted.

The States were next called upon to furnish in lieu of money determinate quantities of beef, pork, flour, and other articles, for the use of the army. This was called a requisition for specific supplies, or a tax in kind, and was found on experiment to be so difficult of execution, so inconvenient, partial, and expensive, that it was speedily abandoned. About this time, Congress resolved upon another expedient. This was to issue a new species of paper money, under the guarantee of the several States. The old money was to be called in by taxes, and as soon as brought in to be burnt, and in lieu thereof, one dollar of the new was to be emitted for every twenty of the old, so that when the whole 200 millions were drawn in and cancelled, only ten millions of the new should be issued in their place, four tenths of which were to be subject to the order of Congress, and the remaining six tenths to the order of the several States. These new bills were to be redeemable in specie within six years, and to bear an interest at the rate of five per cent. to be paid also in specie, at the redemption of the bills, or at the election of the owner annually in bills of exchange on the American commissioners in Europe, at four shillings and six pence for each dollar.

From the execution of these resolutions it was expected that the old money would be cancelled—that the currency would be reduced to a fixed standard—that the States would be supplied with the means of purchasing the specific supplies required of them, and that Congress would be furnished with efficient money to provide for the exigencies of the war. That these good effects would have followed, even though the resolutions of Congress had been carried into execution, is very questionable, but from the partial compliances of the States the experiment was never fairly made, and the new paper answered very little purpose. It was hoped by varying the ground of credit, that Congress would gain a repetition of the advantages which resulted from their first paper expedient, but these hopes were of short duration. By this time much of the popular enthusiasm had spent itself, and confidence in public engagements was nearly expired. The event proved, that credit is of too delicate a nature to be sported with, and can only be maintained by honesty and punctuality. The several expedients proposed by Congress for raising supplies having failed, a crisis followed very interesting to the success of the revolution. The particulars of this shall be related among the public events of the year 1781, in which it took place. Some observations on that primary instrument of American Independence, the old continental bills of credit, shall for the present close this subject.

It would have been impossible to have carried on the war without something in the form of money. There was spirit enough in America to bring to the field of battle as many of her sons, as would have outnumbered the armies of Britain, and to have risqued their fate on a

general engagement; but this was the very thing they ought to avoid. Their principal hope lay in evacuating, retreating, and protracting, to its utmost length, a war of posts. The continued exertions necessary for this species of defence, could not be expected from the impetuous sallies of militia. A regular permanent army became necessary. Though the enthusiasm of the times might have dispensed with present pay, yet without at least as much money as would support them in the field, the most patriotic army must have dispersed.

The impossibility of the Americans procuring gold and silver even for that purpose, doubtless weighted with the British as an encouragement, to bring the controversy to the decision of the sword. What they knew could not be done by ordinary means, was accomplished by those which were extraordinary. Paper of no intrinsic value was made to answer all the purposes of gold and silver, and to support the expenses of five campaigns. This was in some degree owing to a previous confidence, which had been begotten by honesty and fidelity, in discharging the engagements of government. From New-York to Georgia there never had been in matters relating to money, an instance of a breach of public faith. In the scarcity of gold and silver, many emergencies had imposed a necessity of emitting bills of credit. These had been uniformly and honestly redeemed. The bills of Congress being thrown into circulation on this favourable foundation of public confidence, were readily received. The enthusiasm of the people contributed to the same effect. That the endangered liberties of America ought to be defended, and that the credit of their paper was essentially necessary to a proper defence, were the opinions engraven on the hearts of a great majority of the citizens. It was therefore a point of honour, and considered as a part of duty, to take the bills freely at their full value. Private gain was then so little regarded, that the Whig citizens were willing to run all the hazards incidental to bills of credit, rather than injure the cause of their country by undervaluing its money. Every thing human has its limits. While the credit of the money was well supported by public confidence and patriotism, its value diminished from the increase of its quantity. Repeated emissions begat that natural depreciation, which results from an excess of quantity. This was helped on by various causes, which affected the *credit* of the money. The enemy very ingeniously counterfeited their bills, and industriously circulated their forgeries through the United States. Congress allowed to their public agents a commission on the amount of their purchases. Instead of exerting themselves to purchase at a low price, they had therefore an interest in giving a high price for every thing. So strong was the force of prejudice, that the British mode of supplying armies by contract, could not for a long time obtain the approbation of Congress. While these causes operated, confidence in the public was abating, and at the same time, that fervour of patriotism which disregarded interest was daily declining. To prevent or retard the depreciation of their

paper money, Congress attempted to prop its credit by means which wrecked private property, and injured the morals of the people, without answering the end proposed. They recommended to the States to pass laws for regulating the prices of labour, manufacture, and all sorts of commodities, and for confiscating and selling the estates of Tories, and for investing the money arising from the sales thereof in loan-office certificates. As many of those who were disaffected to the revolution, absolutely refused to take the bills of Congress even in the first stage of the war, when the real and nominal value was the same, with the view of counteracting their machinations, Congress early recommended to the States to pass laws for making the paper money a legal tender, at their nominal value, in the discharge of *bona fide* debts, though contracted to be paid in gold or silver. With the same views, they farther recommended that laws should be passed by each of the States, ordaining that "whosoever should ask or receive more, in their bills of credit for gold or silver, or any species of money whatsoever, than the nominal sum thereof in Spanish dollars, or more in the said bills for any commodities whatsoever, than the same would be purchased from the same person in gold and silver, or offer to sell any commodities for gold or silver, and refuse to sell the same for the said bills, shall be deemed an enemy to the liberties of the United States, and forfeit the property so sold or offered for sale." The laws which were passed by the States, for regulating the prices of labour and commodities, were found on experiment to be visionary and impracticable. They only operated on the patriotic few, who were disposed to sacrifice every thing in the cause of their country, and who implicitly obeyed every mandate of their rulers. Others disregarded them, and either refused to part with their commodities, or demanded and obtained their own prices.

These laws in the first instance made an artificial scarcity, and had they not been repealed, would soon have made a real one, for men never exert themselves unless they have the fruit of their exertions secured to them, and at their own disposal.

The confiscation and sale of the property of Tories for the most part brought but very little into the public treasury. The sales were generally made for credit, and by the progressive depreciation, what was dear at the time of the purchase, was very cheap at the time of payment. The most extensive mischief resulted in the progress, and towards the close of the war, from the operation of the laws which made the paper bills a tender, in the discharge of debts contracted payable in gold and silver. When this measure was first adopted, little or no injustice resulted from it, for at that time the paper bills were equal, or nearly equal to gold and silver of the same nominal sum. In the progress of the war, when depreciation took place, the case was materially altered. Laws which were originally innocent, became eventually the occasion of much injustice.

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The evils of depreciation did not terminate with the war; they extend to the present hour.[1] That the helpless part of the community were legislatively deprived of their property, was among the lesser evils which resulted from the legal tender of the depreciated bills of credit. The iniquity of the laws estranged the minds of many of the citizens from the habits and love of justice.

The nature of obligations was so far changed, that he was reckoned the honest man, who from principle delayed to pay his debts. The mounds which government had erected to secure the observance of honesty in the commercial intercourse of man with man, were broken down. Truth, honour, and justice were swept away by the overflowing deluge of legal iniquity, nor have they yet assumed their ancient and accustomed seats. Time and industry have already, in a great degree, repaired the losses of property, which the citizens sustained during the war, but both have hitherto failed in effacing the taint which was then communicated to their principles, nor can its total ablution be expected till a new generation arises, unpractised in the iniquities of their fathers.

4.[2] At the end of two years, this currency, in consequence of enormous emissions, began sensibly to depreciate; and the depreciation became a new source of degeneracy. The want of an established standard of estimation, by which the value of commodities may be ascertained, the price of labour regulated, and bargains equitably adjusted, is a greater evil than any man, who has not been a witness of its consequences, can be induced to believe. A general perplexity at once clouded all human dealings; and it soon became impossible for upright men to determine whether their bargains were honest, or oppressive. After a short period every case of this nature was determined, not by a general rule, but by what the parties thought its own merits; and to these avarice lent its uniform bias. Within three years from the commencement of this evil, the currency sank so low, as to be refused in exchange for the necessaries of life: and, notwithstanding the abundance of provisions in this country, those who could afford nothing else, were frequently reduced to very serious difficulties. Barter became extensively, the established mode of dealing; and barter is the natural parent of the low cunning, and the gross knavery of a jockey. A stable currency, beside furnishing incalculable facility to commerce, is of inestimable benefit to mankind, *as a known standard of commutative justice, and the great means of enforcing it in all the varieties of commercial intercourse.* For the want of such a standard, the general sense of right and obligation, in buying and selling, was

[1] Editor's Note.—Written in 1783.

[2] Dwight, T., *Travels; in New-England and New-York*, vol. iv, pp. 369-371. New Haven, 1822.

Editor's Note.—These observations by Timothy Dwight (1752-1817), at one time president of Yale University, were made between 1796 and 1815. Professor E. G. Bourne ranks Dwight's *Travels* as a most valuable historical source.

gradually lowered; and the pride of making what are called good bargains, a soft name for cheating, gradually extended. Whatever was not punishable by law, multitudes considered as rectitude. That delicacy of mind, which shrinks at the approach of wrong; that tenderness of conscience, which turns with apprehension from every doubtful moral action was extensively succeeded by those gross views, which are satisfied, where magistrates do not meddle, and where shame does not terrify. In the mean time the existing government was peculiarly unhappy. All regular public functionaries lost during this period, either the whole, or a great part of their proper efficacy. In their stead, *committees of inspection and correspondence*, assumed an extensive control over both the public and private affairs of their country. The powers of these bodies were undefined; and, therefore, soon became merely discretionary. Yet they were the tribunals, by which almost every cause was decided. In most instances they were composed of men, unlearned in law, and unskilled in public business. They had no precedents, and no known rules of judging. Often they were the dupes of cunning; and often of flattery. At one time they were awed by superiority of character in their suitors: at another, they were influenced solely by the base pleasure of humbling those, by whom it was possessed. Extensively they were victims of the addling pride, felt by little minds, when unexpectedly invested with authority, and the consequent love of domineering. It is hardly necessary to ask, what were the decisions, flowing from this combination of ignorance, perplexity, and prejudice. Very many, and very great evils, were actually produced by this government; and that it did not produce many more is no small encomium on the character of my countrymen, and a proof of the superintending care and good providence of God.

The influence of a weak and fluctuating government on the morals and happiness of mankind, is, to say the least, not less malignant than that of an established despotism. . . .

5.[1] Depreciation of the Continental Currency

JEFFERSON'S TABLE OF EMISSIONS

Emissions	Sum Emitted	Depreciation	Worth of the Sum Emitted in Silver Dollars
1775, June 23	$ 2,000,000	.....	$ 2,000,000
Nov. 29	3,000,000	.....	3,000,000
1776, Feb. 17	4,000,000	.....	4,000,000
Aug. 13	5,000,000	.....	5,000,000
1777, May 20	5,000,000	2, 2, 3	1,877,273
Aug. 15	1,000,000	3	333,333 1/3
Nov. 7	1,000,000	4	250,000
Dec. 3	1,000,000	4	250,000
1778, Jan. 8	1,000,000	4	250,000
Jan. 22	2,000,000	4	500,000
Feb. 16	2,000,000	5	400,000
Mar. 5	2,000,000	5	400,000
April 4	1,000,000	6	166,666 2/3
April 11	5,000,000	6	833,333 1/3
April 18	500,000	6	83,333 1/3
May 22	5,000,000	5	1,000,000
June 20	5,000,000	4	1,250,000
July 30	5,000,000	4 1/2	1,111,111
Sept. 5	5,000,000	5	1,000,000
Sept. 26	10,000,100	5	2,000,020
Nov. 4	10,000,100	6	1,666,683 1/3
Dec. 14	10,000,100	6	1,666,683 1/3
1779, Jan. 14	24,447,620	8	3,055,952 1/2
Feb. 3	5,000,160	10	500,016
Feb. 12	5,000,160	10	500,016
April 2	5,000,160	17	294,127
May 5	10,000,100	24	416,670 5/6
June 4	10,000,100	20	500,005
June 17	15,000,280	20	750,014
Sept. 17	15,000,260	24	625,010 5/6
Oct. 14	5,000,180	30	166,672 2/3
Nov. 17	10,050,540	38 1/2	261,053
Nov. 29	10,000,140	38 1/2	259,743
	$200,000,000		$36,367,719 5/6

[1] Phillips, Henry, *Historical Sketches of American Paper Currency*, second series (1866), p. 199.

EDITOR'S NOTE.—The author of these sketches (1838-1895) was a distinguished and scholarly antiquarian. He gives in these volumes one of the most detailed and best documented accounts of Continental paper money extant.

The Bank of North America

6.[1] The first institution worthy of the name of a bank, organized in this country, was founded, not with any purpose of enriching those connected therewith, nor of facilitating ordinary trade, but of patriotically assisting the infant republic of the United States to achieve its national independence. At a meeting of citizens held in Philadelphia June 17, 1780, it was resolved to open a "security subscription to the amount of three hundred thousand pounds, Pennsylvania currency, real money," the same to be used in purchasing necessary supplies for Washington's army. At the time the soldiers were in extreme need, and on the verge of mutiny; and the Federal Government was unable to make the requisite provision for the emergency, although it was expected to re-imburse the subscribers ultimately. Thomas Paine, the distinguished free-thinker, and at that time clerk of the Pennsylvania Assembly, was active in promoting the scheme, and enclosed five hundred dollars toward making up the fund to Blair McClenaghan, who, as also Robert Morris, subscribed two hundred pounds in hard money.

Four days later the matter was brought up in the Continental Congress, which then met in Philadelphia, and a committee was appointed to confer with the inspectors and directors of the proposed institution. Subsequently the committee reported a series of resolutions, which were unanimously adopted, appreciatively recognized the intention of the associators, accepting their patriotic offer, and pledging repayment.

The eminent financier and patriot, Robert Morris, then superintendent of finance, devised, in the spring of 1781, the system on which the bank should operate; and, on the 26th of May, Congress approved it. In December the institution was by that body formally chartered as the Bank of North America, with a capital limited to 10,000,000 Spanish silver-milled dollars. The amount of capital paid in by the individual stockholders did not, however, exceed $85,000. The superintendent of finance, to encourage the undertaking, subscribed $250,000 to the stock on behalf of the government; but the national finances were so far exhausted, that the bank was subsequently obliged to release $200,000 of the subscription, and its remaining stock paid in was sold to persons in Holland. The bank was opened for business on Jan. 7, 1782. Before the month of July following it had loaned to the government $400,000, and to the State of Pennsylvania $80,000.

The legislature of Pennsylvania granted the company an act of incorporation of perpetual duration on April 1, 1782, which was repealed in 1785; but the bank continued its business under the act of

[1] Bolles, Albert S., *Industrial History of the United States,* pp. 784-785. Norwich, Conn., 1889.

Editor's Note.—Bolles has contributed many valuable books to the subject of banking and general economic history. His work is accurate and shows the fruit of painstaking research.

Congress. A change of parties in 1787 brought with it a renewal of the charter by the State of Pennsylvania, limited, however, to the term of fourteen years, with a capital of $2,000,000. In 1790 Hamilton, in his report, refers to the "ambiguous situation in which the Bank of North America has placed itself by the acceptance of its last State charter," and concludes, that as this has rendered it a bank of an individual State, with a capital of but $2,000,000, liable to dissolution at the expiration of its charter in fourteen years, it would not be expedient to accept it as an equivalent for a bank of the United States. The State charter of the bank was renewed from time to time until Dec. 3, 1864, when it became a national bank, retaining its original name, with a capital of $1,000,000, and a surplus of nearly the same amount. . . .

The Treaty of Paris

7.[1] *Definitive Treaty of Peace between the United States of America and his Britannic Majesty (September, 1783).*

. . . . . .

Article I

His Britannic Majesty acknowledges the said United States, viz. New-Hampshire, Massachusetts-Bay, Rhode-Island and Providence Plantations, Connecticut, New-York, New-Jersey, Pennsylvania, Delaware, Maryland, Virginia, North-Carolina, South-Carolina, and Georgia, to be free, sovereign and independent States; that he treats with them as such; and for himself, his heirs and successors, relinquishes all claims to the government, propriety and territorial rights of the same, and every part thereof.

Article II

And that all disputes which might arise in future, on the subject of the boundaries of the said United States, may be prevented, it is hereby agreed and declared, that the following are, and shall be their boundaries, viz. From the north-west angle of Nova-Scotia, viz. that angle which is formed by a line, drawn due north from the source of St. Croix river to the Highlands; along the said Highlands which divide those rivers, that empty themselves into the river St. Lawrence, from those which fall into the Atlantic ocean, to the northwesternmost head of Connecticut river, thence down along the middle of that river, to the forty-fifth degree of north latitude; from thence, by a line due west on said latitude, until it strikes the river Iroquois or Cataraquy; thence along the middle of said river into lake Ontario, through the middle of said lake until it strikes the communication by water between that lake and lake Erie; thence along the middle of said communication into lake Erie, through the middle of said lake until it arrives at

[1] U. S. *Statutes at Large,* vol. viii, pp. 80-83.

the water-communication between that lake and lake Huron; thence along the middle of said water-communication into the lake Huron; thence through the middle of said lake to the water-communication between that lake and lake Superior; thence through lake Superior northward of the isles Royal and Phelipeaux, to the Long Lake; thence through the middle of said Long Lake, and the water-communication between it and the Lake of the Woods, to the said Lake of the Woods; thence through the said lake to the most northwestern point thereof, and from thence on a due west course to the river Mississippi; thence by a line to be drawn along the middle of the said river Mississippi until it shall intersect the northernmost part of the thirty-first degree of north latitude. South by a line to be drawn due east from the determination of the line last mentioned, in the latitude of thirty-one degrees north of the Equator, to the middle of the river Apalachicola or Catahouche; thence along the middle thereof to its junction with the Flint river; thence strait to the head of St. Mary's river; and thence down along the middle of St. Mary's river to the Atlantic ocean. East by a line to be drawn along the middle of the river St. Croix, from its mouth in the Bay of Fundy to its source, and from its source directly north to the aforesaid Highlands which divide the rivers that fall into the Atlantic ocean, from those which fall into the river St. Lawrence; comprehending all islands within twenty leagues of any part of the shores of the United States, and lying between lines to be drawn due east from the points where the aforesaid boundaries between Nova-Scotia on the one part, and East-Florida on the other, shall respectively touch the Bay of Fundy and the Atlantic Ocean; excepting such islands as now are, or heretofore have been within the limits of the said province of Nova-Scotia.

Article III

It is agreed that the people of the United States shall continue to enjoy unmolested the right to take fish of every kind on the Grand Bank, and on all the other banks of Newfoundland; also in the gulph of St. Lawrence, and at all other places in the sea, where the inhabitants of both countries used at any time heretofore to fish; and also that the inhabitants of the United States shall have liberty to take fish of every kind on such part of the coast of Newfoundland as British fishermen shall use (but not to dry or cure the same on that island); and also on the coasts, bays, and creeks of all other of his Britannic Majesty's dominions in America; and that the American fishermen shall have liberty to dry and cure fish in any of the unsettled bays, harbours and creeks of Nova-Scotia, Magdalen islands, and Labrador, so long as the same shall remain unsettled; but so soon as the same or either of them shall be settled, it shall not be lawful for the said fishermen to dry or cure fish at such settlement, without a previous agreement for that purpose with the inhabitants, proprietors or possessors of the ground.

Article IV

It is agreed that creditors on either side, shall meet with no lawful impediment to the recovery of the full value in sterling money, of all bona fide debts heretofore contracted.

Article V

It is agreed that the Congress shall earnestly recommend it to the legislatures of the respective states, to provide for the restitution of all estates, rights and properties, which have been confiscated, belonging to real British subjects, and also of the estates, rights and properties of persons resident in districts in the possession of his Majesty's arms, and who have not borne arms against the said United States. And that persons of any other description shall have free liberty to go to any part or parts of any of the thirteen United States, and therein to remain twelve months, unmolested in their endeavours to obtain the restitution of such of their estates, rights and properties, as may have been confiscated; and that Congress shall also earnestly recommend to the several states a reconsideration and revision of all acts or laws regarding the premises, so as to render the said laws or acts perfectly consistent, not only with justice and equity, but with that spirit of conciliation, which on the return of the blessings of peace should universally prevail. And that Congress shall also earnestly recommend to the several states, that the estates, rights and properties of such last mentioned persons, shall be restored to them, they refunding to any persons who may be now in possession, the bona fide price (where any has been given) which such persons may have paid on purchasing any of the said lands, rights or properties, since the confiscation. And it is agreed, that all persons who have any interest in confiscated lands, either by debts, marriage settlements, or otherwise, shall meet with no lawful impediment in the prosecution of their just rights.

Article VI

That there shall be no future confiscations made, nor any prosecutions commenced against any person or persons for, or by reason of the part which he or they may have taken in the present war; and that no person shall, on that account, suffer any future loss or damage, either in his person, liberty or property; and that those who may be in confinement on such charges, at the time of the ratification of the treaty in America, shall be immediately set at liberty, and the prosecutions so commenced be discontinued.

. . . . . .

Article VIII

The navigation of the river Mississippi, from its source to the ocean, shall for ever remain free and open to the subjects of Great-Britain and the citizens of the United States.

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CHAPTER II

INDUSTRIAL PROGRESS: 1783-1820

THE severance of the political tie which had bound the Colonies to Great Britain meant the assumption of entirely new responsibilities. To hold the reins firmly in hand was a formidable task. Having won political freedom, the Colonists courageously faced the difficult problem of gaining economic freedom as well. The adjustments necessary to accomplish this result required skill in statesmanship and the exercise of prophetic vision (Nos. 1-3).

After 1783 the importation of European manufactures—especially British—occurred on a scale sufficiently large to cause many infant industries in the United States to suffer severely. The efforts made by the states individually to protect their respective interests were not only inadequate but led to many serious complications (No. 4). With the adoption of the Constitution the right to impose import duties was vested exclusively in the federal government (No. 5). The first tariff enacted under this authority was the Act of 1789 (No. 6). Although only slightly protective in character, the debates which preceded its adoption clearly indicate that the belief already existed that protection would be necessary to safeguard the interests of American manufactures. That domestic industries, even before the beginning of the Napoleonic Wars in 1793, had made considerable progress in the face of competition from abroad and without the aid of a protective tariff is indicated by the detailed *Report on Manufactures* submitted by Hamilton in 1791 (No. 7). The artificial stimulus created by the enforced withdrawal of European manufactures from the American market during the continental wars was of considerable importance in the early history of commerce and industry in the United States (Nos. 8-9). The imposition of a complete embargo on all exports in 1807 constituted a serious blow to the prosperity of the entire country. With commerce at a standstill, industry languished. While the Non-Intercourse Act somewhat relieved this situation, the continued interference with the rights of neutral nations both by Great Britain and by France soon created a condition which inevitably led to armed resistance on the part of the United States.

At the conclusion of the War of 1812 foreign competition again threatened to undermine many of the infant industries of the country. Once more the advocates of protection came to the forefront (Nos. 10-13). Assisted by a tariff and a steadily growing domestic market the industries of the country grew rapidly.

Results of the War

1.[1] . . . The sudden fortunes made by the war had introduced a spirit of luxury into the maritime towns, and even the taste and manners of the rural inhabitants had been tainted by the effects of military service, in which so large a part of the male population had been more or less engaged. The fisheries, formerly a chief resource of New England, broken up by the war, had not yet been re-established. The farmers no longer found that market for their produce which the French, American, and British armies had furnished. The large importation of foreign goods, subject to little or no duty, and sold at peace prices, was proving ruinous to all those domestic manufactures and mechanical employments which the non-consumption agreements and the war had created and fostered. Immediately after the peace, the country had been flooded with imported goods, and debts had been unwarily contracted for which there was no means to pay. The imports from Great Britain in the years 1784 and 1785 had amounted in value to thirty millions of dollars, while the exports thither had not exceeded nine millions. The lawyers, whose fees were thought enormous, and who were fast growing rich from the multiplicity of suits with which all the courts abounded, were regarded with no very favorable eyes by the mass of the citizens, impoverished by the same causes to which they owed their wealth. There was an abundance of discontented persons more or less connected with the late army, deprived by the peace of their accustomed means of support, and without opportunity to engage in productive industry. The community, from these various causes, was fast becoming divided into two embittered factions of creditors and debtors. The certificates of the public debt, parted with at a great discount by the officers and others to whom they had been given, were fast accumulating in the hands of a few speculators able to wait for better times. With the example of the old tenor paper money before their eyes, an opinion gained ground among the people, oppressed by taxes to meet the interest on these debts, that the holders of certificates by purchase were only entitled to receive what they had paid—an opinion which tended to still further depreciation. Others of the debtor party had more extensive views. Stop and tender laws were called for, and in some states were passed.

[1] Hildreth, R., *History of the United States of America,* rev. ed. vol. iii, pp. 466-468. New York, 1871.

Editor's Note.—This dry annalistic work by Hildreth (1807-1865) has the merit of accuracy as to details, and the demerit that the author is frankly a Federalist who can see no good in anything Jeffersonian.

New issues of paper money were demanded, which, by their depreciation, might sweep off the whole mass of debt, public and private. Such issues were made in New York and Rhode Island, in which latter state John Collins had just been elected governor. The Rhode Island paper soon depreciated to eight for one. Laws were enacted to enforce its circulation; but, though similar to those formerly recommended by Congress to support the credit of the Continental money, they were now generally denounced as oppressive and unjust, and obtained for Rhode Island an unenviable notoriety.

Even those states which issued no paper were far from enjoying a sound currency. The excessive importation of foreign goods had drained the country of specie. The circulating medium consisted principally of treasury orders on the state tax collectors, and depreciated certificates of state and federal debt. Even among those in favor of meeting the public liabilities by taxation, there was a lack of agreement as to the way in which taxes should be raised. The excessive importation of foreign goods, and the consequent pressure upon domestic manufacturers, had diminished a good deal the old prejudice against customs duties. A party had sprung up in favor of raising a large part of the public revenue in that way, thus reviving the old colonial schemes for the protection of domestic industry by duties upon foreign goods. This, however, was opposed by the merchants as injurious to their interests. They came forward as the champions of free trade, and insisted upon the old system of direct taxation. A large part of the people seemed quite disinclined to submit to either method.

2.[1] The Americans knew but little of one another, previous to the revolution. Trade and business had brought the inhabitants of their sea-ports acquainted with each other, but the bulk of the people in the interior country were unacquainted with their fellow-citizens. A continental army, and a Congress composed of men from all the States, by freely mixing together, were assimilated into one mass. Individuals of both, mingling with the citizens, disseminated principles of union among them. Local prejudices abated. By frequent collision asperities were worn off, and a foundation was laid for the establishment of a nation out of discordant materials. Intermarriages between men and women of different States were much more common than before the war, and became an additional cement to the union. Unreasonable jealousies had existed between the inhabitants of the eastern and of the southern States; but on becoming better acquainted with each other, these in a great measure subsided. A wiser policy prevailed. Men of liberal minds led the way in discouraging local distinctions, and the great body of the people, as soon as reason got the better of prejudice, found that their best interests would be most effectually promoted by such practices and sentiments as were favorable to

[1] Ramsay, David, *The History of the American Revolution,* vol. ii, pp. 316-317; 322-323. London, 1793. See note p. 13.

union. Religious bigotry had broken in upon the peace of various sects before the American war: this was kept up by partial establishments, and by a dread that the church of England, through the power of the mother country, would be made to triumph over all other denominations. These apprehensions were done away by the revolution. . . .

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From the later periods of the revolution till the present time, schools, colleges, societies and institutions for promoting literature, arts, manufactures, agriculture, and for extending human happiness, have been increased far beyond anything that ever took place before the declaration of independence. Every State in the union has done more or less in this way, but Pennsylvania has done the most. The following institutions have been very lately founded in that State, and most of them in the time of the war or since the peace. An university in the city of Philadelphia; a college of physicians in the same place; Dickinson college at Carlisle; Franklin college at Lancaster; the Protestant Episcopal academy in Philadelphia; academies at Yorktown, at German-Town, at Pittsburgh, and Washington; and an academy in Philadelphia for young ladies; societies for promoting political inquiries; for the medical relief of the poor, under the title of the Philadelphia Dispensary; for promoting the abolition of slavery, and the relief of free negroes, unlawfully held in bondage; for propagating the gospel among the Indians, under the direction of the United Brethren; for the encouragement of manufactures and the useful arts; for alleviating the miseries of prisons. Such have been some of the beneficial effects, which have resulted from that expansion of the human mind, which has been produced by the revolution; but these have not been without alloy.

To overset an established government, unhinges many of those principles which bind individuals to each other. A long time, and much prudence, will be necessary to re-produce a spirit of union and that reverence for government, without which society is a rope of sand. The right of the people to resist their rulers, when invading their liberties, forms the corner stone of the American republics. This principle, though just in itself, is not favourable to the tranquillity of present establishments. The maxims and measures, which in the year 1774 and 1775 were successfully inculcated and adopted by American patriots, for oversetting the established government, will answer a similar purpose, when recurrence is had to them by factious demagogues for disturbing the freest governments that were ever devised.

3.[1] . . . The nation being in debt, and destitute of the means of

[1] Robertson, William, *A History of North and South America,* pp. 1078-79. London, 1788.

Editor's Note.—William Robertson (1721-1793) was born in Scotland. His contributions to historical writing are scholarly. Notable among his works is a *History*

payment, heavy taxes were necessarily imposed. This increased the discontent which already prevailed among the people to an alarming degree. The state governments resorted to various measures for the relief of their citizens. In Rhode Island the government issued a quantity of paper money, redeemable at a future day; this measure only involved them in all the difficulties which the general government had experienced from the same cause;—depreciation of their bills, and loss of public credit.

In Massachusetts a law was passed for making real and personal estate a tender in the discharge of executions and actions commenced at law. Other laws were also passed, considered oppressive; one for collecting former taxes not paid in certain specified articles; and another for rendering processes of law less expensive. The distress which prevailed in the country at length produced insurrections. In August, nearly 1500 insurgents assembled under arms at Northampton, and took possession of the court-house. Their object was to prevent the sittings of the court of common pleas, and of course, the issuing of executions under these obnoxious laws. The governor issued a proclamation, calling on the citizens to suppress such treasonable proceedings; but his proclamation was utterly disregarded. In the next month, a scene similar to that at Northampton was acted at Worcester. A body of men, exceeding 300, assembled, and compelled the court their sitting to adjourn.

Nor was Massachusetts the only state where a disposition to insurgency manifested itself. In New Hampshire a large body of malcontents assembled at Exeter, where the general assembly of the state was convened, and surrounding the house where they were in session, held them prisoners for several hours. The insurrection here was soon crushed by the energetic measures of the government. The leader of the malcontents in Massachusetts was Daniel Shays. At the head of 300 men, he marched into Springfield, where the supreme judicial court was in session, and took possession of the court-house. He then appointed a committee, who waited on the court with an order couched in the humble form of a petition, requesting them not to proceed to business; and both parties retired. The number of insurgents increased; the posture of affairs became alarming; and an army of 4,000 men was at length ordered out for their dispersion. This force was placed under the command of General Lincoln. His first measure was to march to Worcester; and he afforded such protection to the court at that place, that it resumed and executed the judicial functions. Orders were given to General Shepard to collect a sufficient force to secure the arsenal at Springfield. Accordingly, he raised about 900 men, which were reinforced by 300 militia from the county of Hampshire. At the head of his force he marched, as directed, to Springfield.

of Scotland. Robertson was appointed Royal Historiographer of Scotland in 1764. Many editions of his collected works have been issued.

On the 25th of January Shays approached at the head of 1,100 men. Shepard sent out one of his aids to know the intention of the insurgents, and to warn them of their danger. Their answer was, that they would have the barracks, and they proceeded to within a few hundred yards of the arsenal. They were then informed that the militia were posted there by order of the governor; and that they would be fired upon if they approached nearer. They continued to advance, when General Shepard ordered his men to fire, but to direct their fire over their heads; even this did not intimidate them, or retard their movements. The artillery was then levelled against the centre column, and the whole body thrown into confusion. Shays attempted in vain to rally them. They made a precipitate retreat to Ludlow, about ten miles from Springfield. Three men were killed, and one wounded. They soon after retreated to Petersham; but General Lincoln pursuing their retreat, they finally dispersed.

Some of the fugitives retired to their homes; but many, and among them their principal officers, took refuge in the states of New Hampshire, Vermont and New York.

Commissioners were appointed by the government of Massachusetts, empowered to promise pardon, on certain conditions, to all concerned in the rebellion. Several hundreds received the benefit of the commission. Fourteen only were sentenced to death, and these were afterwards pardoned.

A proposal was this year made to amend the articles of confederation. The present frame of government, although it had served during the pressure of danger to keep the several parts of the nation together, was now found inadequate for providing for the national exigencies. In forming the articles of confederation, great care had been taken to withhold any delegation of power, which might hereafter endanger the liberties of the individual states. Congress had no authority to enforce its ordinances; and now that the pressure of public danger was removed, they were contemned and disregarded. The treaties which the general government had formed with foreign nations, had been violated by some of the states, and some of them refused to adopt a system of import, which was devised by congress. It became evident that nothing could put a stop to evils of this description, but a more energetic form of government.

In 1783, John Adams, then in Europe, suggested to congress the expediency of strengthening the general government. In 1786, at the suggestion of Mr. Madison, in the legislature of Virginia, a convention of delegates from five of the middle states met at Annapolis, who came to the conclusion that nothing short of a thorough reform of the existing government, would be effectual for the welfare of the country. Congress approved their proceedings, and passed a resolution, recommending a convention of delegates, to be holden at Philadelphia.

In May 1787, the convention met, and instead of amending the articles of confederation, they proceeded to form a new constitution.

Their debates were long and arduous. A momentous political experiment was to be tried, and the destinies of unborn millions hung upon their deliberation. Respecting many articles of the constitution, much difference of opinion existed. In particular, where the strength of the new government came in question, an honest diversity of opinion, in men of equal patriotism, prevailed. On the one hand, it was considered, that if the government were made too weak, a state or anarchy and consequent revolution would ensue; on the other, that if it were made too strong, America would lose the blessings of liberty which she had bled at every pore to obtain, and only make an exchange of foreign for domestic oppression.

Some of these politicians thought the only safe mode of reasoning was from the experience of the past, and that all speculations not drawn from this source, should be condemned as impracticable, speculative, and visionary. These looked for an example to the constitution of England, as containing the best form of government actually existing.

Others believed that as the circumstances of the times changed, governments should accommodate themselves to the change. That the present state of the world, and the situation of America had no parallels in history;—and that therefore the track of no former nation could serve as the guide to their voyage: but like the discoverer of their continent, they must lay their course through the untravelled way, with nothing to guide them but the light of heaven, and their own observation.

The happy medium probably lies between the extremes of these two opinions; and the constitution framed, being a compromise between them, the form of government, which it prescribes is probably, on that account, more perfect than if either side had wholly prevailed.

Connected with these ideas concerning the greater or less degree of strength proper to give to the new government, was the subject of the consolidation or strict independence of the states. Those who wished for the general government to possess great strength, were charged by their opponents with wishing so to arrange it, that in the play of its parts, it would have broken down and subjected to itself the state governments. Those, on the other hand, who feared oppression more than anarchy, watched, with a jealous eye, every infringement of state rights.

Those in favor of holding the state strongly united, were called at this time federalists, and their opponents anti-federalists.

Other points of dispute arose still more dangerous, because they divided parties by geographical lines. The most difficult of these regarded the representation in congress of the slave-holding states. The non-slave-holders contended that the number of representatives sent should only be in proportion to the number of free white inhabitants. This would bring some states whose whole population was great, upon a level with others where the number of inhabitants was

comparatively small; and members from these states would not give their consent to such an appointment. This difficulty, like many others which perplexed the convention, was compromised; and the slaves were allowed to be reckoned, in settling the quota of representatives, as equal to three-fifths of an equal number of free white inhabitants.

That these great difficulties were compromised, holds up this convention, as an example to future times, of the triumph of strong patriotism and honest zeal for the public welfare, over party feeling and factious prejudice. If the time shall ever come when any American congress or convention shall fail to compromise amicably, disputes which conflicting interests must produce in this extensive republic; then will the day of its degeneracy have arrived, and its downfall be at hand: then will be experienced the triumph of party feeling and factious interest over patriotism and public zeal. The finger of history would point with scorn at such a body of men, while she contrasted them with the wise and honest patriots who framed the constitution which such a convention would have destroyed.

The federal constitution, at the time of its adoption, was far from receiving the entire confidence which it now commands. It made the government too strong to please one party, and too weak to satisfy the other; and while, on the one hand, it was believed, that it would in its operation eventually overturn the liberty of America, on the other, it was pronounced to be a "rope of sand," and the date of its dissolution was augured to be near.

The Need for Federal Legislation

4.[1] . . . The people of America had gone to war, not for names, but for things. It was not merely to change a government administered by kings, princes, and ministers, for a government administered by presidents, and secretaries, and members of congress. It was to redress their own grievances, to improve their own condition, to throw off the burden which the colonial system laid on their industry. To attain their objects, they endured incredible hardships, and bore and suffered almost beyond the measure of humanity. And when their independence was attained, they found it was a piece of parchment. The arm which had struck for it in the field, was palsied in the workshop; the industry which had been *burdened* in the colonies, was *crushed* in the free states; and, at the close of the revolution, the mechanics and manufacturers of the country found themselves, in the bitterness of their hearts, independent—and ruined.

They looked round them in despair. They cast about for means of relief, and found none, but in a plan of a voluntary association throughout the continent, and an appeal to the patriotism of their fellow-citizens. Such an association was formed in Boston in 1787 or

[1] Mellen, Grenville, ed., *A Book of the United States*, pp. 356-358. Hartford, 1839.

EDITOR'S NOTE.—This work by Grenville Mellen (1799-1841) contains a great deal of interesting material of distinct value in the study of American economic history.

1788, and a circular letter was addressed by them to their brethren throughout the union. The proposal was favorably received, and in some of the cities zealously acted upon; but, unsupported by a general legislation, its effects must at best have been partial and inadequate.

But before our citizens had discovered this, by sad experience, a new and unhoped-for remedy for their sufferings had been devised. The day-star of the constitution arose; and of all the classes of the people of America, to whose hearts it came as the harbinger of blessings long hoped for and long despaired of, most unquestionably the tradesmen, mechanics, and manufacturers hailed it with the warmest welcome. It had in fact grown out of the all-pervading inefficiency and wretchedness of the revenue system, which had been felt in ruin by them, more than by any other class. The feelings, with which it was regarded by the "tradesmen and manufacturers of New York," will appear from their letter, in reply to the circular of the association in Boston. This expression of the sentiments which were entertained in New York, while the adoption of the constitution by that state was an event of a few months' standing, may afford instruction and bear repetition at the present day.

A Letter from the Tradesmen and Manufacturers of New York to the Tradesmen and Manufacturers of Boston

"New York, *17th Nov. 1788.*

"GENTLEMEN:—The mechanics and manufacturers of the city of New York have long contemplated and lamented the evils, which a pernicious system of commerce has introduced into our country, and the obstacles with which it has opposed the extension and improvement of American manufactures; and having taken into consideration your circular letter, wherein those evils and their remedies are pointed out, in a just and striking manner, have authorized us to communicate to you, in answer to your address, their sentiments on the interesting subject.

"It is with the highest pleasure that we embrace this opportunity, to express to you their approbation of the liberal and patriotic attempt of the tradesmen and manufacturers of your respectable town.

"Every zealous and enlightened friend to the prosperity of this country must view, with peculiar regret, the impediments with which foreign importations have embarrassed the infant arts in America. We are sensible that they are not only highly unfavorable to every mechanical improvement, but that they nourish a spirit of dependence, which tends in some degree to defeat the purposes of our late revolution, and tarnish the lustre of our character. We are sensible that long habit has fixed, in the minds of the people, an unjust predilection for foreign productions, and has rendered them too regardless of the arguments and complaints, with which the patriotic and discerning have addressed them from every quarter. These prejudices have become confirmed and radical; and we are convinced that a strong

and united effort is necessary to expel them. We are happy that the tradesmen of Boston have led the way to a general and efficient exertion in this important cause.

"The impression we feel of the utility and expediency of encouraging our domestic manufactures is in perfect correspondence with your own; and we shall most cheerfully unite our endeavours with those of our brethren throughout the union, and shall be ready to adopt every measure, which will have a tendency to facilitate the great design.

"The legislature of our state, convinced of the propriety of cherishing our manufactures in their early growth, have made some provisions for that purpose. We have no doubt that more comprehensive and decisive measures will in time be taken by them. But on the confederated exertions of our brethren, *and especially on the patronage and protection of the general government*, we rest our most flattering hopes of success.

"In order to support and improve the union and harmony of the American manufacturers, and to render as systematic and uniform as possible their designs for the common benefit, we perfectly concur with you on the propriety of establishing a reciprocal and unreserved communication. When our views, like our interests, are combined and concentered, *our petitions to the federal legislature will assume the tone and complexion of the public wishes, and will have a proportionable weight and influence.*

"We request you to favor us with the continuation of your correspondence, and to transmit to us, from time to time, such resolutions and proposals of your association as may be calculated for the promotion of our mutual interests.

"We are, with the highest respect, &c."

Such were the feelings and hopes, with which the labouring classes of the country in general, particularly the manufacturers and mechanics, looked forward to the adoption of the federal constitution. In the state of Massachusetts, it is admitted, that the question of adoption was decided, under the influence of the association of tradesmen and manufacturers already mentioned. In the convention of that state, the encouragement of manufactures, by protecting laws, was declared in debate to be a leading and avowed object of the constitution. As it was successively adopted in each state, triumphant processions of the tradesmen, mechanics, and manufacturers, with the banners of their industry, and mottoes expressive of their reliance on the new constitution for protection, evinced, in the most imposing form, and in the presence of uncounted multitudes, the principles, the expectations, and the hopes of the industrious classes of the community. Processions of this kind were organized in Portsmouth, in Boston, in New York, in Philadelphia, in Baltimore, and in Charleston; and the sentiment which animated and inspired them all, was that which was expressed in the motto inscribed upon the banners of the manufacturers in Philadel-

phia, "*May the Union Government protect the Manufactures of America.*"

Economic Provisions of the Constitution

5.[1] Article I, Sec. 8.

The Congress shall have Power:

To lay and collect Taxes, Duties, Imposts, and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts, and Excises, shall be uniform throughout the United States;

To borrow Money on the credit of the United States;

To regulate Commerce with foreign Nations, and among the several States, and with the Indian tribes;

To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States.

To coin Money, regulate the value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

To establish Post Offices and Post Roads;

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.

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Sec. 9. The Migration or Importation of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a Tax or Duty may be imposed on such Importation, not exceeding ten dollars for each Person.

The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the Public Safety may require it.

No Bill of Attainder or expost facto Law shall be passed.

No Capitation, or other direct, tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken.

No Tax or Duty shall be laid on Articles exported from any State.

No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound, to, or from, one State, be obliged to enter, clear, or pay Duties in another.

No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

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[1] U. S. *Revised Statutes* (ed. 1878), pp. 17-32.

Sec. 10. No State shall enter any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, expost facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility.

No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing its inspection Laws: and the net Produce of all Duties and Imposts, laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Control of the Congress.

No State shall, without the Consent of Congress, lay any Duty of Tonnage, keep Troops, or Ships of War in Time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.

Article VI. All Debts contracted and Engagements entered into, before the adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

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The Tariff of 1789

6.[1] A quorum of the house of representatives under the new constitution was formed, for the first time, on 1st April, 1789. In one week from that day, Mr. Madison brought forward the subject of the revenue system, as the most important, which required the attention of the national legislature. Pending the discussion of this subject, and three days after it commenced, a memorial was presented "from the tradesmen, manufacturers, and others of the town of Baltimore, in the state of Maryland, praying an imposition of such duties on all foreign articles, which can be made in America, as will give a just and decided preference to the labors of the petitioners, and that there may be granted to them, in common with the other manufacturers and mechanics of the United States, such relief as to the wisdom of congress may seem proper." This was followed up, the next day, by a petition from the shipwrights of Charleston, S. C., stating "the distress they were in, from the decline of that branch of the business, and the present situation of the trade of the United States, and praying that the wisdom and policy of the national legislature may be directed to such

[1] Mellen, Grenville, ed., *A Book of the United States,* pp. 358-360. Hartford, 1839. See note p. 34.

Editor's Note.—Primarily intended for the purpose of collecting revenue and incidentally to render protection, the Tariff Act of 1789 provided for specific duties on thirty different commodities and *ad valorem* duties (ranging from 7½ to 15 per cent) on a few selected articles; commodities not listed were subjected to a tax of 5 per cent. The Act of 1789 also provided for the granting of drawbacks and discrimination against foreign shipping. Provision for tonnage duties was contained in a Tonnage Act (July 20, 1789).

measures, in a general regulation of trade, and the establishment of a proper navigation act, as will relieve the particular distresses of the petitioners, in common with those of their fellow shipwrights, throughout the union."

Thus the two first memorials presented to the [C]ongress of the United States were for protecting duties on American industry; and of these memorials, one was from Baltimore, and the other from Charleston, South Carolina.

A few days after, a similar memorial came in from New York, "setting forth that, in the present deplorable state of commerce and manufactures, they look with confidence to the operations of the new government for a restoration of both, and that relief which they have so long and so ardently desired; that they have subjoined a list of such articles as can be manufactured in New York, and humbly pray the countenance and attention of the national legislature thereto."

Numerous other petitions of like purport were shortly after presented, and in pursuance of their prayers, as well as from the crying demands of the public service, the first impost law was passed, at an early period of the session. It was, with the exception of the law prescribing the oaths of office, the first law, which was passed under the new government. In the long debate, which arose, at different stages of its progress, the idea was advanced, by members from every part of the country, that [C]ongress were bound to lay duties, that would encourage its manufacturing industry; and it does not appear that the suggestion was made in the reported debates, that they did not constitutionally possess the power. Mr. Madison thus expressed himself on the subject:—"The states, that are most advanced in population and ripe for manufactures, ought to have their particular interest attended to, in some degree. While these states retained the power of making regulations of trade, they had the power to protect and cherish such institutions. By adopting the present constitution, they have thrown the exercise of this power into other hands. They must have done this with the expectation, that those interests would not be neglected here." And again, "duties laid on imported articles may have an effect, which comes within the idea of national prudence. It may happen that materials for manufactures may grow up, without any encouragement for this purpose. It has been the case in some of the states. But in others, regulations have been provided and have succeeded in producing some establishments, which ought not to be allowed to perish, from the alteration which has taken place. It would be cruel to neglect them, and turn their industry to other channels; for it is not possible for the hand of man to shift from one employment to another, without being injured by the change. There may be some manufactures, which, being once formed, can advance toward perfection, without any adventitious aid; while others, for want of the fostering hand of government, will be unable to go on at all. Legislative attention will be therefore necessary to collect the

proper objects for this purpose." Such were the principles on which this law was supported; and when it finally passed, it was stated, in the preamble, to be "for the support of government, the discharge of the debts of the United States, and the encouragement and protection of manufactures."

Extent of American Manufactures—1791

7.[1] To all the arguments which are brought to evince the impracticability of success in manufacturing establishments in the United States, it might have been a sufficient answer to have referred to the experience of what has been already done. It is certain that several important branches have grown up and flourished, with a rapidity which surprises, affording an encouraging assurance of success in future attempts. Of these it may not be improper to enumerate the most considerable:

1. Of Skins.—Tanned and tawed leather, dressed skins, shoes, boots, and slippers, harness and saddlery of all kinds, portmanteaus and trunks, leather breeches, gloves, muffs, and tippets, parchment and glue.

2. Of Iron.—Bar and sheet iron, steel, nail rods and nails, implements of husbandry, stoves, pots, and other household utensils, the steel and iron work of carriages, and for ship-building, anchors, scale beams and weights, and various tools of artificers, arms of different kinds; though the manufacture of these last has of late diminished for want of demand.

3. Of Wood.—Ships, cabinet wares, and turnery, wool and cotton cards, and other machinery for manufactures and husbandry, mathematical instruments, coopers' wares of every kind.

4. Of Flax and Hemp.—Cables, sail cloth, cordage, twine, and pack thread.

5. Bricks and coarse tiles, and potters' wares.

6. Ardent spirits and malt liquors.

7. Writing and printing paper, sheathing and wrapping paper, pasteboard, fullers' or press papers, paper hangings.

8. Hats of fur and wool, and mixtures of both; women's stuff and silk shoes.

9. Refined sugars.

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[1] *The Works of Alexander Hamilton* (Constitutional edition), edited by Henry Cabot Lodge, vol. iv, pp. 126-129; 164-198.

Editor's Note.—This report on manufactures ranks among the best of Hamilton's official reports. It is a painstaking attempt to analyze the industrial situation of the United States at the close of the eighteenth century. While much of the material contained in this report was gathered by his able assistants in the Treasury Department, Hamilton's keenness of mind and clear vision are apparent on every page. This document is a source of invaluable assistance to the student of early American history.

10. Oils of animals and seeds, soap, spermaceti and tallow candles.
11. Copper and brass wires, particularly utensils for distillers, sugar refiners, and brewers; andirons and other articles for household use, philosophical apparatus.
12. Tin wares for most purposes of ordinary use.
13. Carriages of all kinds.
14. Snuff, chewing and smoking tobacco.
15. Starch and hair-powder.
16. Lampblack, and other painters' colors.
17. Gunpowder.

Besides manufactories of these articles, which are carried on as regular trades, and have attained to a considerable degree of maturity, there is a vast scene of household manufacturing, which contributes more largely to the supply of the community than could be imagined without having made it an object of particular inquiry. This observation is the pleasing result of the investigation to which the subject of this report has led, and is applicable as well to the Southern as to the Middle and Northern States. Great quantities of coarse cloths, coatings, serges, and flannels, linsey woolseys, hosiery of wool, cotton, and thread, coarse fustians, jeans, and muslins, checked and striped cotton and linen goods, bed-ticks, coverlets and counterpanes, tow linens, coarse shirtings, sheetings, towelling, and table linen, and various mixtures of wool and cotton, and of cotton and flax, are made in the household way, and, in many instances, to an extent not only sufficient for the supply of the families in which they are made, but for sale, and even, in some cases, for exportation. It is computed in a number of districts that two thirds, three fourths, and even four fifths, of all the clothing of the inhabitants are made by themselves. The importance of so great a progress as appears to have been made in family manufactures, within a few years, both in a moral and political view, renders the fact highly interesting.

Neither does the above enumeration comprehend all the articles that are manufactured, as regular trades. Many others occur, which are equally well established, but which, not being of equal importance, have been omitted. And there are many attempts, still in their infancy, which, though attended with very favorable appearances, could not have been properly comprised in an enumeration of manufactories already established. There are other articles, also, of great importance, which, though, strictly speaking, manufactures, are omitted, as being immediately connected with husbandry: such are flour, pot- and pearl-ashes, pitch, tar, turpentine, and the like.

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The inquiries to which the subject of this report has led have been answered with proofs that manufactories of iron, though generally understood to be extensive, are far more so than is commonly sup-

posed. The kinds in which the greatest progress has been made, have been mentioned in another place, and need not be repeated; but there is little doubt that every other kind, with due cultivation, will rapidly succeed. It is worthy of remark, that several of the particular trades of which it is the basis, are capable of being carried on without the aid of large capitals.

Iron-works have greatly increased in the United States, and are prosecuted with much more advantage than formerly. The average price, before the Revolution, was about sixty-four dollars per ton; at present it is about eighty—a rise which is chiefly to be attributed to the increase of manufactures of the material.

The still further extension and multiplication of such manufactures will have the double effect of promoting the extraction of the metal itself, and of converting it to a greater number of profitable purposes.

Those manufactures, too, unite, in a greater degree than almost any others, the several requisites which have been mentioned as proper to be consulted in the selection of objects.

The only further encouragement of manufactories of this article, the propriety of which may be considered as unquestionable, seems to be an increase of the duties on foreign rival commodities.

Steel is a branch which has already made a considerable progress, and it is ascertained that some new enterprises, on a more extensive scale, have been lately set on foot. The facility of carrying it to an extent which will supply all internal demands, and furnish a considerable surplus for exportation, cannot be doubted. The duty upon the importation of this article, which is, at present, seventy-five cents per cwt., may, it is conceived, be safely and advantageously extended to one hundred cents. It is desirable, by decisive arrangements, to second the efforts which are making in so very valuable a branch.

The United States already, in a great measure, supply themselves with nails and spikes. They are able, and ought certainly to do it entirely. The first and most laborious operation, in this manufacture, is performed by water-mills; and of the persons afterwards employed, a great proportion are boys, whose early habits of industry are of importance to the community, to the present support of their families, and to their own future comfort. It is not less curious than true, that, in certain parts of the country, the making of nails is an occasional family manufacture.

The expediency of an additional duty on these articles is indicated by an important fact. About 1,800,000 pounds of them were imported into the United States in the course of a year, ending the 30th of September, 1790. A duty of two cents per pound would, it is presumable, speedily put an end to so considerable an importation. And it is, in every view, proper that an end should be put to it.

The manufacture of these articles, like that of some others, suffers from the carelessness and dishonesty of a part of those who carry it on. An inspection in certain cases might tend to correct the evil.

It will deserve consideration whether a regulation of this sort cannot be applied, without inconvenience, to the exportation of the articles, either to foreign countries, or from one State to another.

The implements of husbandry are made in several States in great abundance. In many places it is done by the common blacksmiths. And there is no doubt that an ample supply for the whole country can, with great ease, be procured among ourselves.

Various kinds of edged tools for the use of mechanics are also made; and a considerable quantity of hollow wares, though the business of castings has not yet attained the perfection which might be wished. It is, however, improving, and as there are respectable capitals, in good hands, embarked in the prosecution of those branches of iron manufacture which are yet in their infancy, they may all be contemplated as objects not difficult to be acquired.

To insure the end it seems equally safe and prudent to extend the duty, ad valorem, upon all manufactures of iron, or of which iron is the article of chief value, to ten per cent.

Fire-arms and other military weapons may, it is conceived, be placed, without inconvenience, in the class of articles rated at fifteen per cent. There are already manufactories of these articles, which only require the stimulus of a certain demand to render them adequate to the supply of the United States.

It would also be a material aid to manufactures of this nature, as well as a means of public security, if provision should be made for an annual purchase of military weapons, of home manufacture, to a certain determinate extent, in order to the formation of arsenals; and to replace, from time to time, such as should be drawn for use, so as always to have in store the quantity of each kind which should be deemed a competent supply.

But it may, hereafter, deserve legislative consideration, whether manufactories of all the necessary weapons of war ought not to be established, on account of the government itself. Such establishments are agreeable to the usual practice of nations, and that practice seems founded on sufficient reason.

There appears to be an improvidence in leaving these essential implements of national defence to the casual speculations of individual adventure—a resource which can less be relied upon, in this case, than in most others; the articles in question not being objects of ordinary and indispensable private consumption or use. As a general rule, manufactories on the immediate account of government are to be avoided; but this seems to be one of the few exceptions which that rule admits, depending on very special reasons.

Manufactures of steel, generally, or of which steel is the article of chief value, may, with advantage, be placed in the class of goods rated at seven and a half per cent. As manufactures of this kind have not yet made any considerable progress, it is a reason for not rating them as high as those of iron: but, as this material is the basis

of them, and as their extension is not less practicable than important, it is desirable to promote it by a somewhat higher duty than the present.

A question arises how far it might be expedient to permit the importation of iron, in pigs and bars, free from duty. It would certainly be favorable to manufactures of the article; but the doubt is, whether it might not interfere with its production.

Two circumstances, however, abate, if they do not remove, apprehension on this score: one is the considerable increase of price which has been already remarked, and which renders it probable that the free admission of foreign iron would not be inconsistent with an adequate profit to the proprietors of iron-works; the other is the augmentation of demand which would be likely to attend the increase of manufactures of the article, in consequence of the additional encouragements proposed to be given. But caution, nevertheless, in a matter of this kind is most advisable. The measure suggested ought, perhaps, rather to be contemplated subject to the lights of further experience, than immediately adopted.

Copper—The manufactures of which this article is susceptible are, also, of great extent and utility. Under this description, those of brass, of which it is the principal ingredient, are intended to be included.

The material is a natural production of the country. Mines of copper have actually been wrought, and with profit to the undertakers, though it is not known that any are now in this condition. And nothing is easier than the introduction of it from other countries, on moderate terms and in great plenty.

Coppersmiths and brass founders, particularly the former, are numerous in the United States; some of whom carry on business to a respectable extent.

To multiply and extend manufactories of the materials in question, is worthy of attention and effort. In order to this, it is desirable to facilitate a plentiful supply of the materials; and a proper mean to this end is, to place them in the class of free articles. Copper, in plates, and brass, are already in this predicament; but copper, in pigs and bars, is not; neither is lapis calaminaris, which, together with copper and charcoal, constitute the component ingredients of brass. The exemption from duty, by parity of reason, ought to embrace all such of these articles as are objects of importation.

An additional duty on brass wares will tend to the general end in view. These now stand at five per cent., while those of tin, pewter, and copper, are rated at seven and a half. There appears to be a propriety, in every view, in placing brass wares upon the same level with them; and it merits consideration, whether the duty upon all of them ought not be raised to ten per cent.

Lead—There are numerous proofs that this material abounds in the United States, and requires little to unfold it to an extent more

than equal to every domestic occasion. A prolific mine of it has long been open in the southwestern parts of Virginia, and under a public administration, during the late war, yielded a considerable supply for military use. This is now in the hands of individuals, who not only carry it on with spirit, but have established manufactories of it at Richmond, in the same State.

The duties already laid upon the importation of this article, either in its unmanufactured or manufactured state, insure it a decisive advantage in the home market, which amounts to considerable encouragement. If the duty on pewter wares should be raised, it would afford a further encouragement. Nothing else occurs as proper to be added.

Fossil Coal—This, as an important instrument of manufactures, may, without impropriety, be mentioned among the subjects of this report.

A copious supply of it would be of great consequence to the iron branch. As an article of household fuel, also, it is an interesting production, the utility of which must increase in proportion to the decrease of wood, by the progress of settlement and cultivation. And its importance to navigation, as an immense article of transportation coastwise, is signally exemplified in Great Britain.

It is known that there are several coal mines in Virginia, now worked; and appearances of their existence are familiar in a number of places.

The expediency of a bounty on all this species of coal, of home production, and of premiums on the opening of new mines, under certain qualifications, appears to be worthy of particular examination. The great importance of the article will amply justify a reasonable expense in this way, if it shall appear to be necessary to, and shall be thought likely to answer, the end.

Wood—Several manufactures of this article flourish in the United States. Ships are nowhere built in greater perfection, and cabinet wares generally, are made little, if at all, inferior to those of Europe. Their extent is such as to have admitted of considerable exportation.

An exemption from duty, of the several kinds of wood ordinarily used in these manufactures, seems to be all that is requisite, by way of encouragement. It is recommended by the consideration of a similar policy being pursued in other countries, and by the expediency of giving equal advantages to our own workmen in wood. The abundance of timber, proper for ship building in the United States, does not appear to be any objection to it. The increasing scarcity and growing importance of that article, in the European countries, admonish the United States to commence, and systematically to pursue, measures for the preservation of their stock. Whatever may promote the regular establishment of magazines of ship timber, is in various views desirable.

Skins—There are scarcely any manufactories of greater importance

than of this article. Their direct and very happy influence upon agriculture, by promoting the raising of cattle of different kinds, is a very material recommendation.

It is pleasing, too, to observe the extensive progress they have made in their principal branches, which are so far matured as almost to defy foreign competition. Tanneries, in particular, are not only carried on as a regular business, in numerous instances, and in various parts of the country, but they constitute, in some places, a valuable item of incidental family manufactures.

Representations, however, have been made, importing the expediency of further encouragement to the leather branch, in two ways: one by increasing the duty on the manufactures of it which are imported; the other, by prohibiting the exportation of bark. In support of the latter, it is alleged, that the price of bark, chiefly in consequence of large exportations, has risen, within a few years, from about three dollars to four and a half per cord.

These suggestions are submitted, rather as intimations which merit consideration, than as matters the propriety of which is manifest. It is not clear that an increase of duty is necessary; and in regard to the prohibitions desired, there is no evidence of any considerable exportation hitherto; and it is most probable, that whatever augmentation of price may have taken place, is to be attributed to an extension of the home demand, from the increase of manufactures, and to a decrease of the supply, in consequence of the progress of settlement, rather than to the quantities which have been exported.

It is mentioned, however, as an additional reason for the prohibition, that one species of the bark usually exported, is in some sort peculiar to the country, and the material of a very valuable dye, of great use in some other manufactures, in which the United States have begun a competition.

There may also be this argument in favor of an increase of duty. The object is of importance enough to claim decisive encouragement, and the progress which has been made leaves no room to apprehend any inconvenience on the score of supply, from such an increase.

It would be of benefit to this branch, if glue, which is now rated at five per cent., were made the object of an excluding duty. It is already made, in large quantities, at various tanneries, and, like paper, is an entire economy of materials, which, if not manufactured, would be left to perish. It may be placed, with advantage, in the class of articles paying fifteen per cent.

Grain—Manufactures of the several species of this article have a title to peculiar favor, not only because they are, most of them, immediately connected with the subsistence of the citizens, but because they enlarge the demand for the most precious products of the soil.

Though flour may with propriety be noticed as a manufacture of grain, it were useless to do it but for the purpose of submitting the expediency of a general system of inspection throughout the ports of

the United States, which, if established upon proper principles, would be likely to improve the quality of our flour everywhere, and to raise its reputation in foreign markets. There are, however, considerations which stand in the way of such an arrangement.

Ardent spirits and malt liquors are, next to flour, the two principal manufactures of grain. The first has made a very extensive, the last a considerable progress in the United States. In respect to both, an exclusive possession of the home market ought to be secured to the domestic manufacturers as fast as circumstances will admit. Nothing is more practicable, and nothing more desirable.

The existing laws of the United States have done much towards attaining this valuable object, but some additions to the present duties on foreign distilled spirits and foreign malt liquors, and perhaps an abatement of those on home-made spirits, would more effectually secure it, and there does not occur any very weighty objection to either.

An augmentation of the duties on imported spirits would favor, as well the distillation of spirits from molasses, as that from grain; and to secure to the nation the benefit of a manufacture, even of foreign materials, is always of great, though perhaps of secondary importance.

A strong impression prevails in the minds of those concerned in distilleries (including, too, the most candid and enlightened), that greater differences in the rates of duty on foreign and domestic spirits are necessary completely to secure the successful manufacture of the latter, and there are facts which entitle this impression to attention.

It is known that the price of molasses, for some years past, has been successively rising in the West India markets, owing partly to a competition which did not formerly exist, and partly to an extension of demand in this country; and it is evident that the late disturbances in those islands, from which we draw our principal supply, must so far interfere with the production of the article as to occasion a material enhancement of price. The destruction and devastation attendant on the insurrection in Hispaniola in particular, must not only contribute very much to that effect, but may be expected to give it some duration. These circumstances, and the duty of three cents per gallon on molasses, may render it difficult for the distillers of that material to maintain with adequate profit a competition with the rum brought from the West Indies, the quality of which is so considerably superior.

The consumption of geneva, or gin, in this country, is extensive. It is not long since distilleries of it have grown up among us to any importance. They are now becoming of consequence, but being still in their infancy they require protection.

It is represented that the price of some of the materials is greater here, than in Holland, from which place large quantities are brought; the price of labor considerably greater; capitals engaged in the business there much larger than those which are employed here; the rate

of profits at which the undertakers can afford to carry it on much less; the prejudices in favor of imported gin strong. These circumstances are alleged to outweigh the charges which attend the bringing of the article from Europe to the United States and the present difference of duty, so as to obstruct the prosecution of the manufacture with due advantage.

Experiment could, perhaps, alone decide with certainty the justness of the suggestions which are made; but, in relation to branches of manufacture so important, it would seem inexpedient to hazard an unfavorable issue, and better to err on the side of too great than of too small a difference in the particular in question.

It is, therefore, submitted, that an addition of two cents per gallon be made to the duty on imported spirits of the first class of proof, with a proportionable increase on those of higher proof; and that a deduction of one cent per gallon be made from the duty on spirits distilled within the United States, beginning with the first class of proof, and a proportionable deduction from the duty on those of higher proof.

It is ascertained that by far the greatest part of the malt liquors consumed in the United States, are the produce of domestic breweries. It is desirable, and in all likelihood attainable, that the whole consumption should be supplied by ourselves.

The malt liquors at home, though inferior to the best, are equal to a great part of those which have been usually imported. The progress already made is an earnest of what may be accomplished. The growing competition is an assurance of improvement. This will be accelerated by measures tending to invite a great capital into this channel of employment.

To render the encouragement of domestic breweries decisive, it may be advisable to substitute to the present rates of duty, eight cents per gallon, generally; and it will deserve to be considered as a guard against evasions, whether there ought not to be a prohibition of their importation, except in casks of considerable capacity. It is to be hoped, that such a duty would banish from the market foreign malt liquors of inferior quality, and that the best kind only would continue to be imported, till it should be supplanted by the efforts of equal skill or care at home.

Till that period, the importation, so qualified, would be a useful stimulus to improvement, and, in the meantime, the payment of the increased price for the enjoyment of a luxury, in order to the encouragement of a most useful branch of domestic industry, could not reasonably be deemed a hardship.

As a further aid to manufactures of grain, though upon a smaller scale, the articles of starch, hair-powder, and wafers, may with great propriety be placed among those which are rated at fifteen per cent. No manufactures are more simple, nor more completely within the reach of a full supply from domestic sources; and it is a policy as

common as it is obvious, to make them the objects either of prohibitionary duties or of express prohibition.

Flax and Hemp—Manufactures of these articles have so much affinity to each other, and they are so often blended, that they may, with advantage, be considered in conjunction. The importance of the linen branch to agriculture, its precious effects upon household industry, the ease with which the materials can be produced at home, to any requisite extent, the great advances which have been already made in the coarser fabrics of them, especially in the family way, constitute claims of peculiar force to the patronage of government.

This patronage may be afforded in various ways; by promoting the growth of the materials, by increasing the impediments to an advantageous competition of rival foreign articles, by direct bounties, or premiums upon the home manufactures.

1st. As to promoting the growth of the materials.

In respect to hemp, something has been already done by the high duty upon foreign hemp. If the facilities for domestic production were not unusually great, the policy of the duty on the foreign raw material would be highly questionable, as interfering with the growth or manufactures of it. But making the proper allowances for those facilities, and with an eye to the future and natural progress of the country, the measure does not appear, upon the whole, exceptionable.

A strong wish naturally suggests itself, that some method could be devised, of affording a more direct encouragement to the growth both of flax and hemp; such as would be effectual, and, at the same time, not attended with too great inconveniences. To this end, bounties and premiums offer themselves to consideration, but no modification of them has yet occurred, which would not either hazard too much expense, or operate unequally, in reference to the circumstances of different parts of the Union; and which would not be attended with very great difficulties in the execution.

2d. As to increasing the impediments to an advantageous competition of rival foreign articles.

To this purpose an augmentation of the duties on importation is the obvious expedient, which, in regard to certain articles, appears to be recommended by sufficient reasons.

The principal of these articles is sail-cloth—one intimately connected with navigation and defence, and of which a flourishing manufactory is established at Boston, and very promising ones at several other places.

It is presumed to be both safe and advisable to place this in the class of articles rated at ten per cent. A strong reason for it results from the consideration that a bounty of two pence sterling, per ell, is allowed in Great Britain, upon the exportation of the sail-cloth manufactured in that kingdom.

It would likewise appear to be good policy to raise the duty to seven and a half per cent. on the following articles: Drillings, osnaburgs,

ticklenburgs, dowals, canvas, brown rolls, bagging, and upon all other linens, the first cost of which, at the place of exportation, does not exceed thirty-five cents per yard. A bounty of twelve and a half per cent. upon an average, on the exportation of such or similar linens from Great Britain, encourages the manufacture of them in that country, and increases the obstacles to a successful competition in the countries to which they are sent.

The quantities of tow and other household linens, manufactured in different parts of the United States, and the expectations which are derived from some late experiments, of being able to extend the use of labor-saving machines, in the coarser fabrics of linen, obviate the danger of inconvenience from an increase of the duty upon such articles, and authorize a hope of speedy and complete success to the endeavors which may be used for procuring an internal supply.

3d. As to direct bounties or premiums upon the manufactured articles.

To afford more effectual encouragement to the manufacture, and at the same time to promote the cheapness of the article, for the benefit of navigation, it will be of great use to allow a bounty of two cents per yard on all sail-cloth which is made in the United States, from materials of their own growth. This would also assist the culture of those materials. An encouragement of this kind, if adopted, ought to be established for a moderate term of years, to invite to new undertakings, and to an extension of the old. This is an article of importance enough to warrant the employment of extraordinary means in its favor.

Cotton—There is something in the texture of this material which adapts it, in a peculiar degree, to the application of machines. The signal utility of the mill for spinning of cotton, not long since invented in England, has been noticed in another place; but there are other machines, scarcely inferior in utility, which, in the different manufactories of this article, are employed, either exclusively, or with more than ordinary effect. This very important circumstance recommends the fabrics of cotton, in a more particular manner, to a country in which a defect of hands constitutes the greatest obstacle to success.

The variety and extent of the uses to which the manufactures of this article are applicable, is another powerful argument in their favor. And the faculty of the United States to produce the raw material in abundance, and of a quality which, though alleged to be inferior to some that is produced in other quarters, is nevertheless capable of being used with advantage in many fabrics, and is probably susceptible of being carried by a more experienced culture to much greater perfection, suggests an additional and a very cogent inducement to the vigorous pursuit of the cotton branch, in its several subdivisions.

How much has been already done has been stated in a preceding part of this report.

In addition to this, it may be announced, that a society is forming,

with a capital which is expected to be extended to at least half a million of dollars, on behalf of which, measures are already in train for prosecuting, on a large scale, the making and printing of cotton goods.

These circumstances conspire to indicate the expediency of removing any obstructions which may happen to exist, to the advantageous prosecution of the manufactories in question, and of adding such encouragements as may appear necessary and proper.

The present duty of three cents per pound, on the foreign raw material, is undoubtedly a very serious impediment to the progress of those manufactories.

The injurious tendency of similar duties, either prior to the establishment or in the infancy of the domestic manufacture of the article, as it regards the manufacture, and their worse than inutility, in relation to the home production of the material itself, have been anticipated, particularly in discussing the subject of pecuniary bounties.

Cotton has not the same pretensions with hemp, to form an exception to the general rule.

Not being, like hemp, an universal production of the country, it affords less assurance of an adequate internal supply; but the chief objection arises from the doubts which are entertained, concerning the quality of the national cotton. It is alleged that the fibre of it is considerably shorter and weaker, than that of some other places; and it has been observed, as a general rule, that the nearer the place of growth to the equator, the better the quality of the cotton. That which comes from Cayenne, Surinam, and Demarara, is said to be preferable, even at a material difference of price, to the cotton of the islands.

While a hope may reasonably be indulged, that, with due care and attention, the national cotton may be made to approach nearer than it now does to that of regions somewhat more favored by climate; and while facts authorize an opinion that very great use may be made of it, and that it is a resource which gives greater security to the cotton fabrics of this country, than can be enjoyed by any which depends wholly on external supply, it will certainly be wise, in every view, to let our infant manufactures have the full benefit of the best materials, on the cheapest terms. It is obvious that the necessity of having such materials is proportioned to the unskilfulness and inexperience of the workmen employed, who, if inexpert, will not fail to commit great waste, where the materials they are to work with are of an indifferent kind.

To secure to the national manufacturers so essential an advantage, a repeal of the present duty on imported cotton is indispensable.

A substitute for this, far more encouraging to domestic production, will be to grant a bounty on the national cotton, when wrought at a home manufactory; to which a bounty on the exportation of it may be added. Either, or both, would do much more towards promoting the growth of the article, than the merely nominal encouragement, which it

is proposed to abolish. The first would also have a direct influence in encouraging the manufacture.

The bounty which has been mentioned, as existing in Great Britain, upon the exportation of coarse linens, not exceeding a certain value, applies also to certain descriptions of cotton goods of similar value.

This furnishes an additional argument for allowing to the national manufactures, the species of encouragement just suggested, and, indeed, for adding some other aid.

One cent per yard, not less than of a given width, on all goods of cotton, or of cotton and linen mixed, which are manufactured in the United States, with the addition of one cent per pound weight of the material, if made of national cotton, would amount to an aid of considerable importance, both to the production and to the manufacture of that valuable article. And it is conceived that the expense would be well justified by the magnitude of the object.

The printing and staining of cotton goods is known to be a distinct business from the fabrication of them. It is one easily accomplished, and which, as it adds materially to the value of the article in its white state, and prepares it for a variety of new uses, is of importance to be promoted.

As imported cottons, equally with those which are made at home, may be the objects of this manufacture, it will merit consideration, whether the whole, or a part of the duty, on the white goods, ought not to be allowed to be drawn in favor of those who print or stain them. This measure would certainly operate as a powerful encouragement to the business; and though it may, in a degree, counteract the original fabrication of the articles, it would probably more than compensate for this disadvantage, in the rapid growth of a collateral branch, which is of a nature sooner to attain to maturity. When a sufficient progress shall have been made, the drawback may be abrogated, and by that time the domestic supply of the articles to be printed or stained will have been extended.

If the duty of seven and a half per cent. on certain kinds of cotton goods were extended to all goods of cotton, or of which it is the principal material, it would probably more than counterbalance the effect of the drawback proposed, in relation to the fabrication of the article. And no material objection occurs to such an extension. The duty, then, considering all the circumstances which attend goods of this description, could not be deemed inconveniently high; and it may be inferred, from various causes, that the prices of them would still continue moderate.

Manufactories of cotton goods, not long since established at Beverly, in Massachusetts, and at Providence, in the State of Rhode Island, and conducted with a perseverance corresponding with the patriotic motives which began them, seem to have overcome the first obstacles to success: producing corduroys, velverets, fustians, jeans, and other similar articles, of a quality which will bear a comparison with the like articles

brought from Manchester. The one at Providence has the merit of being the first introducing into the United States the celebrated cotton mill, which not only furnishes materials for that manufactory itself, but for the supply of private families, for household manufacture.

Other manufactories of the same material, as regular businesses, have also been begun at different places in the State of Connecticut, but all upon a smaller scale than those above-mentioned. Some essays are also making in the printing and staining of cotton goods. There are several small establishments of this kind, already on foot.

Wool—In a country, the climate of which partakes of so considerable a proportion of winter, as that of a great part of the United States, the woollen branch cannot be regarded as inferior to any, which relates to the clothing of the inhabitants.

Household manufactures of this material are carried on in different parts of the United States, to a very interesting extent; but there is only one branch, which, as a regular business, can be said to have acquired maturity. This is the making of hats.

Hats of wool, and of wool mixed with fur, are made in large quantities, in different States; and nothing seems wanting, but an adequate supply of materials, to render the manufacture commensurate with the demand.

A promising essay, towards the fabrication of cloths, cassimeres, and other woollen goods, is likewise going on at Hartford, in Connecticut. Specimens of the different kinds which are made, in the possession of the Secretary, evince that these fabrics have attained a very considerable degree of perfection. Their quality certainly surpasses anything that could have been looked for in so short a time, and under so great disadvantages; and conspires, with the scantiness of the means, which have been at the command of the directors, to form the eulogium of that public spirit, perseverance, and judgment, which have been able to accomplish so much.

To cherish and bring to maturity this precious embryo, must engage the most ardent wishes and proportionable regret, as far as the means of doing it may appear difficult or uncertain.

Measures which should tend to promote an abundant supply of wool, of good quality, would probably afford the most efficacious aid that present circumstances permit.

To encourage the raising and improving the breed of sheep, at home, would certainly be the most desirable expedient for that purpose; but it may not be alone sufficient, especially as it is, yet, a problem, whether our wool be capable of such a degree of improvement as to render it fit for the finer fabrics.

Premiums would probably be found the best means of promoting the domestic, and bounties the foreign supply. The first may be within the compass of the institution, hereafter to be submitted. The last would require a specific legislative provision. If any bounties are

granted, they ought, of course, to be adjusted with an eye to quality as well as quantity.

A fund for the purpose may be derived from the addition of two and a half per cent. to the present rate of duty on carpets and carpeting; an increase to which the nature of the articles suggests no objection, and which may, at the same time, furnish a motive the more to the fabrication of them at home, towards which some beginnings have been made.

Silk—The production of this article is attended with great facility in most parts of the United States. Some pleasing essays are making in Connecticut, as well towards that, as towards the manufacture of what is produced. Stockings, handkerchiefs, ribbons, and buttons are made, though as yet but in small quantities.

A manufactory of lace, upon a scale not very extensive, has been long memorable at Ipswich, in the State of Massachusetts.

An exemption of the material from the duty which it now pays on importation, and premiums upon the production to be dispensed under the direction of the institution before alluded to, seem to be the only species of encouragement advisable at so early a stage of the thing.

Glass—The materials for making glass are found everywhere. In the United States there is no deficiency of them. The sands and stones called *tarso*, which include flinty and crystalline substances generally, and the salts of various plants, particularly of the sea-weed kali, or kelp, constitute the essential ingredients. An extraordinary abundance of fuel is a particular advantage enjoyed by this country for such manufactures. They, however, require large capitals, and involve much manual labor.

Different manufactories of glass are now on foot in the United States. The present duty of twelve and a half per cent. on all imported articles of glass, amounts to a considerable encouragement to those manufactories. If anything in addition is judged eligible, the most proper would appear to be a direct bounty on window-glass and black bottles.

The first recommends itself as an object of general convenience; the last adds to that character the circumstance of being an important item in breweries. A complaint is made of great deficiency in this respect.

Gunpowder—No small progress has been, of late, made in the manufacture of this very important article. It may, indeed, be considered as already established; but its high importance renders its further extension very desirable.

The encouragements which it already enjoys, are a duty of ten per cent. on the foreign rival article, and an exemption of saltpetre, one of the principal ingredients of which it is composed, from duty. A like exemption of sulphur, another chief ingredient, would appear to be equally proper. No quantity of this article has yet been produced from internal sources. The use made of it in finishing the bottoms of

ships is an additional inducement to placing it in the class of free goods. Regulations for the careful inspection of the article would have a favorable tendency.

Paper—Manufactories of paper are among those which are arrived at the greatest maturity in the United States, and are most adequate to national supply. That of paper-hanging is a branch in which respectable progress has been made.

Nothing material seems wanting to the further success of this valuable branch, which is already protected by a competent duty on similar imported articles.

In the enumeration of the several kinds made subject to that duty, sheathing and cartridge paper have been omitted. These being the most simple manufactures of the sort, and necessary to military supply, as well as ship-building, recommend themselves equally with those of other descriptions, to encouragement, and appear to be as fully within the compass of domestic exertions.

Printed Books—The great number of presses disseminated throughout the Union seem to afford an assurance that there is no need of being indebted to foreign countries for the printing of the books which are used in the United States. A duty of ten per cent. instead of five, which is now charged upon the article, would have a tendency to aid the business internally.

It occurs as an objection to this, that it may have an unfavorable aspect towards literature, by raising the prices of books, in universal use in private families, schools, and other seminaries of learning. But the difference, it is conceived, would be without effect.

As to books which usually fill the libraries of the wealthier classes, and of professional men, such an augmentation of price as might be occasioned by an additional duty of five per cent. would be too little felt to be an impediment to the acquisition.

And with regard to books which may be specially imported for the use of particular seminaries of learning, and of public libraries, a total exemption from duty would be advisable, which would go far towards obviating the objection just mentioned. They are now subject to a duty of five per cent.

As to the books in most general family use, the constancy and universality of the demand would insure exertions to furnish them at home, and the means are completely adequate. It may also be expected ultimately, in this as in other cases, that the extension of the domestic manufacture would conduce to the cheapness of the article.

It ought not to pass unremarked, that to encourage the printing of books is to encourage the manufacture of paper.

Refined Sugars and Chocolate—Are among the number of extensive and prosperous domestic manufactures.

Drawbacks of the duties upon the materials of which they are respectively made, in cases of exportation, would have a beneficial influence upon the manufacture, and would conform to a precedent which

has been already furnished in the instance of molasses, on the exportation of distilled spirits.

Cocoa, the raw material, now pays a duty of one cent per pound, while chocolate, which is a prevailing and very simple manufacture, is comprised in the mass of articles rated at no more than five per cent.

There would appear to be a propriety in encouraging the manufacture by a somewhat higher duty on its foreign rival, than is paid on the raw material. Two cents per pound on imported chocolate would, it is presumed, be without inconvenience.

The foregoing heads comprise the most important of the several kinds of manufactures which have occurred as requiring, and, at the same time, as most proper for public encouragement; and such measures for affording it as have appeared best calculated to answer the end, have been suggested.

The observations which have accompanied this delineation of objects supersede the necessity of many supplementary remarks. One or two, however, may not be altogether superfluous.

Bounties are, in various instances, proposed as one species of encouragement.

It is a familiar objection to them that they are difficult to be managed and liable to frauds. But neither that difficulty nor this danger seems sufficiently great to countervail the advantages of which they are productive when rightly applied. And it is presumed to have been shown that they are, in some cases, particularly in the infancy of new enterprises, indispensable.

It will, however, be necessary to guard, with extraordinary circumspection, the manner of dispensing them. The requisite precautions have been thought of, but to enter into the detail would swell this report, already voluminous, to a size too inconvenient.

If the principle shall not be deemed inadmissible, the means of avoiding an abuse of it will not be likely to present insurmountable obstacles. There are useful guides from practice in other quarters.

It shall, therefore, only be remarked here, in relation to this point, that any bounty which may be applied to the manufacture of an article, cannot, with safety, extend beyond those manufactories at which the making of the article is a regular trade. It would be impossible to annex adequate precautions to a benefit of that nature, if extended to every private family in which the manufacture was incidentally carried on; and, being a merely incidental occupation which engages a portion of time that would otherwise be lost, it can be advantageously carried on without so special an aid.

The possibility of a diminution of the revenue may also present itself as an objection to the arrangements which have been submitted.

But there is no truth which may be more firmly relied upon, than that the interests of the revenue are promoted by whatever promotes an increase of national industry and wealth.

In proportion to the degree of these, is the capacity of every country

to contribute to the public treasury; and where the capacity to pay is increased, or even is not decreased, the only consequence of measures which diminish any particular resource, is a change of the object. If, by encouraging the manufacture of an article at home, the revenue which has been wont to accrue from its importation should be lessened, an indemnification can easily be found, either out of the manufacture itself, or from some other object which may be deemed more convenient.

The measures, however, which have been submitted, taken aggregately, will, for a long time to come, rather augment than decrease the public revenue.

There is little room to hope, that the progress of manufactures will so equally keep pace with the progress of population, as to prevent even a gradual augmentation of the product of the duties on imported articles.

As, nevertheless, an abolition in some instances, and a reduction in others, of duties which have been pledged for the public debt, is proposed, it is essential that it should be accompanied with a competent substitute. In order to do this, it is requisite that all the additional duties which shall be laid, be appropriated, in the first instance, to replace all defalcations which may proceed from any such abolition or diminution. It is evident, at first glance, that they will not only be adequate to this, but will yield a considerable surplus. This surplus will serve:

First. To constitute a fund for paying the bounties which have been decreed.

Secondly. To constitute a fund for the operations of a board to be established, for promoting arts, agriculture, manufactures, and commerce. Of this institution, different intimations have been given in the course of this report. An outline of a plan for it shall now be submitted.

Let a certain annual sum be set apart, and placed under the management of commissioners, not less than three, to consist of certain officers of the government and their successors in office.

Let these commissioners be empowered to apply the fund confided to them, to defray the expenses of the emigration of artists and manufacturers in particular branches of extraordinary importance; to induce the prosecution and introduction of useful discoveries, inventions, and improvements, by proportionate rewards, judiciously held out and applied; to encourage by premiums, both honorable and lucrative, the exertions of individuals and of classes, in relation to the several objects they are charged with promoting; and to afford such other aids to those objects as may be generally designated by law.

The commissioners to render to the Legislature an annual account of their transactions and disbursements; and all such sums as shall not have been applied to the purposes of their trust, at the end of every three years, to revert to the treasury. It may, also, be enjoined upon them not to draw out the money, but for the purpose of some specific disbursement.

It may, moreover, be of use to authorize them to receive voluntary contributions, making it their duty to apply them to the particular objects for which they may have been made, if any shall have been designated by the donors.

There is reason to believe that the progress of particular manufactures has been much retarded by the want of skilful workmen. And it often happens, that the capitals employed are not equal to the purposes of bringing from abroad workmen of a superior kind. Here, in cases worthy of it, the auxiliary agency of government would, in all probability, be useful. There are also valuable workmen in every branch, who are prevented from emigrating, solely by the want of means. Occasional aids to such persons, properly administered, might be a source of valuable acquisitions to the country.

The propriety of stimulating by rewards the invention and introduction of useful improvements, is admitted without difficulty. But the success of attempts in this way must evidently depend much on the manner of conducting them. It is probable that the placing of the dispensation of those rewards under some proper discretionary direction, where they may be accompanied by collateral expedients, will serve to give them the surest efficacy. It seems impracticable to apportion, by general rules, specific compensations for discoveries of unknown and disproportionate utility.

The great use which may be made of a fund of this nature, to procure and import foreign improvements, is particularly obvious. Among these, the article of machines would form a most important item.

The operation and utility of premiums have been adverted to, together with the advantages which have resulted from their dispensation, under the direction of certain public and private societies. Of this, some experience has been had, in the instance of the Pennsylvania Society for the promotion of manufactures and useful arts; but the funds of that association have been too contracted to produce more than a very small portion of the good to which the principles of it would have led. It may confidently be affirmed, that there is scarcely any thing which has been devised better calculated to excite a general spirit of improvement than the institutions of this nature. They are truly invaluable.

In countries where there is great private wealth, much may be effected by the voluntary contributions of patriotic individuals; but in a community situated like that of the United States, the public purse must supply the deficiency of private resource. In what can it be so useful, as in prompting and improving the efforts of industry?

Observations on the Growth of American Manufactures (1813)

8.[1] The belief of years has resolved into moral certainty. It was an old opinion that the United States could never become a *really*

[1] Niles: *Weekly Register,* vol. iii, pp. 328-329 (January 23, 1813).

Editor's Note.—*Niles' Register* was founded by Hezekiah Niles (1777-1839) in

independent, distinct and separate nation, while so many of our necessaries, conveniences and luxuries were received from abroad. Our ablest politicians, knowing the *influence* generated by these considerations, always predicted what the declaration of war against *England* has realized; for now it is evident matter of fact, that our people on the seaboard must be weaned from their late great commercial intercourse with that country, before they can possess one genuine and generous *American* feeling. To the shreds of the *old predilections* in favor of *Great Britain*, handed down from father to son, and imbibed through a multitude of mediums, such as books, business and all the circumstances of social life, is superadded the more powerful dispositions of *pecuniary interest*. In the scale of affections, the love of self preponderates; and the many thousands who grow rich by dealing in *foreign* goods must needs be under *foreign* influence. "*Where the treasure is the heart will be also*," and it is too much the case with the *trading* world that money is the god they worship. It is not to be expected that these narrow personal feelings can be eradicated; but time and perseverance may divert them to better objects *at home*.

It is cause of rejoicing that many, very many millions of dollars have latterly been invested in *domestic manufacturing establishments*, and to observe the current of wealth still urging the erection of new and magnificent works. This mighty and increasing capital begets a new feeling; for the "treasure" is *at home*. The influence of money is wonderful; and the mind changes as the means of acquiring it are presented. Hence a powerful *home influence* is spreading itself through society, and the people are becoming more abstracted from *foreign* considerations. In the city of *Baltimore* are now sold various kinds of goods to the value of at least half a million of dollars *per annum*, all of which species, five years ago, were received from *abroad;* and the pith and marrow of the matter is this, that the supply is immensely increasing, because all who deal in them find their *profit* in doing so—

"Men follow money
As bees follow honey,"

and many very valuable establishments for the chief sale of *domestic goods* have sprung up in different parts of the city; while every day brings to market some *new commodity*.

It is true that the manufactures of the United States are not yet adequate to the consumption of the country; but hundreds of thousands are clothed entirely with *home-made* apparel; while many of our most

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Baltimore in 1811. Under his able editorship (1811-1836) this journal became an important factor in shaping public opinion on matters of politics and economics. The historic value of the journal is not marred in the slightest by the emphatic bias of the editor. During a period in our history when the issue between free trade and protection was extremely bitter, Niles upheld protectionism in no uncertain terms. His belief in the industrial greatness of the United States finds continual expression in the editorial columns of his journal.

important branches of mechanical industry are completely supplied with all their tools and apparatus from other work-shops among us. Our bountiful country pours forth its resources; and genius applies its productions to the wants and conveniences of life.[1] Our progress in improvement has no parallel; nor is the increase of our population more surprising than the proceeds of our manufactures, rising in all their varied form in every direction, and pursued *with an eye to profit* in almost every farm house in the United States. The *merino breed* of sheep is spreading with astonishing rapidity—they are already numerous, and much attention is paid to improving the common species. The manufacture of all the coarser kinds of *cotton goods*, with some of the most delicate fabrics, may be considered as *fully established.* The western states will supply us with an abundance of *hemp* and *hempen manufactures.* The chief part of the heavy *metallic articles* are now made amongst us, while many of the lighter kinds are extensively and profitably furnished. The *woolen manufacture* keeps pace with the rest, and great investitures are made in its various departments. Ancient prejudices have yielded to the impulses of patriotism or the dictates of prudence, and it has become *fashionable* to use *home manufactures.* This is a most important point gained, for we are creatures of prejudice; and, "like blind horses in a mill," pursue the beaten track without a why or wherefore. Six years ago our whole export of *flour*, *beef*, *pork* and *provisions*, generally, did no more than pay for the *foreign* liquors we consumed: the case is materially altered —the long despised *whiskey*, rectified, and improved, has driven from the side-board *English* rum and *French* brandy, or suffers them to remain as mere monuments of former favor. Our most dashing bucks are proud to boast a *homespun coat;* and the prudent house-wife delightedly exhibits her newly made table linen, sheeting, carpets, etc. This is that pride that destroys a *foreign* influence—it is an honest pride, and should be encouraged, and so indeed it is—for no man is ashamed for his apparel, though it be coarse, if it is clean and decent, and HOME-SPUN.

Seeing the importance of *domestic manufactures* in lessening our connection with the old world, corrupted and corrupting, the patriot heart leaps with joy at the speedy prospect of "reversing the tables"

[1] While writing this article, I was interrupted by a neighbor exhibiting two beautiful specimens, *of two great hills,* of *red* and *yellow ochre,* within three miles of *Baltimore;* which, by comparison, are far superior to any hitherto imported. The best *French* yellow, sold in our paint stores, of which a specimen is also presented, is not near so brilliant as the domestic product. These hills of ochre, are situate on the navigable waters of the *Patapsco,* and represented as inexhaustible.

While with great satisfaction we notice the establishment of new manufactories in all parts of the United States, it is with singular pleasure we observe the certificates of several respectable *curriers* in *Philadelphia,* stating, that they have, *in use, curriers' knives* made in that city, which are equal to any imported. The leather manufacture is of the greatest importance; and it *was thought* that we must long continue to import these indispensable knives—but the delusion has past.

upon it, in making it the *necessity* of *foreign* nations, to *depend* on us for those raw materials and articles of food which it was *our* object to exchange for *their* productions—*but which they must have*, not possessing within themselves the means to furnish them.—*Then* will our country stand on high ground; and wealth flow gradually in from all quarters, without subjecting us to *foreign* partialities or the *gamblings* of commerce. The trade of the country will increase; but the anxiety of the merchant will be, not to receive from *Europe* the chief articles of his adventure, but to obtain of his neighbors, responsible men vouching for their good qualities, and on whose faith he can recommend them abroad, all that he wants.—This time is not far distant—the *political millennium* in America is fast approaching, and will come; though like the croaking raven, a FOREIGN INFLUENCE predicts all calamity. The righteous war for our *seamen* and our *rights*, grossly violated, is one of the grand means by which a good Providence will bring about a blessed union of the people, in directing them to look AT HOME for all they desire. Let the real *American* be of good cheer—we shall triumph by land as well as by sea; but more than all in establishing a HOME INFLUENCE that will guard and defend happy *Columbia* amidst the "throes and convulsions of the old world," when "infuriated man, through blood and slaughter, shall seek his liberty," with horrors unprecedented.

The United States as an Industrial Rival of Great Britain

9.[1] It is not improbable, that mercenary individuals of this country [England], possessing capital, influence, and experience in particular manufactures, may be induced, by the encouragements held out by the Americans, to embark these valuable qualities in their cause, carrying with them considerable numbers of artisans; and so sensible are the Americans of the necessity of introducing foreign manufacturers, for the purpose of conducting and working their factories, that great importance is attached to the advantages arising from their importation; nor is it improbable that bounties may be given, or at least *secret* rewards bestowed, on the captains of American vessels, to direct their attention to this subject. The liberal minded Briton, who had not had the advantage of contemplating the American character, or from personal observation of forming a judgment of the party in power, or the collision and effervescence of opinions and motives, exposed, detected, assented to, or contradicted daily in the political contests of the States, may feel perfectly secure, and say there is no danger, estimating the character of that government and people by his own, and deprecating their being charged with such practices as too degrading. But let not our excess of candour betray this country into a state of supineness; let not false reasonings and wrong conclusions lull it into an opinion that America cannot rival the manufactures of more mature countries.

[1] *The Colonial Policy of Great Britain*, by a British Traveller, pp. 114-121. Philadelphia, 1816.

Rather let such persons reflect on what she has already done, and will still farther attempt. And here let it be observed, that where two parties of opposite political opinions meet in a common centre, it is not likely that any of their darling objects will remain untried. An extension of manufactures, therefore, is the prevailing desire of the whole nation, and it is founded on the principle of making the citizens of the States independent of an European supply, and supplanting Britain in foreign markets; the States possessing collectively many natural advantages, mutually conducive to their prosperity, while held together by one common bond of union. And it must be remembered, that these are in the hands of a people, who have displayed the greatest degree of perseverance of spirit, and adventurous enterprise, in matters connected with trade.[1] What then is wanting, in order to establish manufactories sufficiently extensive to supply the home consumption and engage in exportations, but a supply of artisans, which can only be procured from Europe? And one grand advantage, stated by their ablest writers, rests on the circumstance of "employing foreign strength in the manufactories, leaving the natives to cultivate the soil or navigate the ships."

The author is, therefore, fully persuaded that Great Britain never before had such a dangerous rival; especially as the American government stands pledged to do something extraordinary, and has even commenced with a new tariff of duties on importations. This, then, is the era of a systematic contest, which must eventually endanger the safety of the one or the other. In the United States, where politics are so generally discussed, a stranger cannot long remain ignorant of party difference and sentiments, arising from that universal desire of communicating and inquiring, that is prevalent throughout all ranks of the community. It is easy, therefore, for an attentive observer to elicit truth from the various contrarieties which exist among them. The author's opinions consequently are not singular; they are those of many other persons well qualified to judge. But the public mind in this country is too tranquil; it must be aroused from its lethargy, and it must see America through the medium of the traveller: nothing amounting to a national feeling has yet swayed us in the contemplation of this formidable opposition. So new, so dangerous above comparison, yet so easy to be defeated, even now! It is time, however, to form a simultaneous opinion, and use, not only the ordinary precautions of prudence and foresight, but to redouble them. Ignorant of the secret views of the advocates for American manufactures; ignorant of the moral tendency of a manufacturing system, to superinduce the very re-

[1] The following circumstance affords an excellent illustration of the above:—A gentleman established a spinning mill near Portland, but as the country people had always been accustomed to spin cotton and wool for themselves, he could find no employment for it; to break the old system there, he actually spun gratis for a considerable time. Query. Was this patriotism, or was the individual secretly supported by the government?

straints, the imaginary oppressions, the want and poverty, they are anxious to fly from; an unthinking populace embrace with eagerness the desire to emigrate to that happy country where liberty and affluence await them, while *the salutary restraints* at home, intended to promote the good of the whole nation, are regarded as personal slavery. They are, at the same time, allured by the high price of labour, the promised plenty, and cheapness of provision in the States; all of which operate as additional incentives, determining them to accept the insidious proposals of the foreign negotiator.

Emigration, therefore, to the United States, must be checked, while that to the British provinces must be encouraged. New channels must be provided for our superfluous manufactures when the old ones are stopped, as the time may not be far distant when they may be excluded from the States altogether, or such duties imposed as shall give the rival commodities a complete advantage over them.

The possibility of the manufactures of America contending with this country, did not escape the penetration of Lord Melville, when Mr. Dundas, with a prophetic spirit, asserted in the House of Commons, in April, 1796, that "such an event, besides the prejudicial manner in which it would operate on the navigation of the kingdom, would put out of our power the whole produce of the West Indies. For when the planters could readily find a market elsewhere, we should lose all the surplus which forms so great an article in our foreign trade; and the whole of that important advantage would be for ever lost." Speculatists, at the very commencement of the colonial system, saw the possibility of their future opposition. Sir Joshua Child, in the year 1660, remarked "that America possessed a fitness for rival manufactures, building rival shipping, and draining the mother country of people." And it was prognosticated, that the colonies would soon revolt; notwithstanding which, the perpetual endeavours of disaffected persons could not separate them from the mother country, until upwards of a century had elapsed; during which period, the commerce, manufactures, and prosperity of Britain, increased most rapidly. The conclusion therefore is, that, like other events of the age, the novel aspect of American competition, being without precedent, precautionary measures of the same description must also be taken, adapted to the peculiar exigences of the case. A formidable party have reasoned very forcibly, and they have supported their reasonings with estimates, and calculations on the supposed tendency of restrictive measures to ruin the West India islands, and by their means the mother country; and yet it appears, that when restrictions prevailed, the Americans bore away so large a share of our commerce, as enriched and enabled them to prove our rivals in manufactures! If a restricted commerce did this, what would one less restricted do, but increase their resources and competition? If under the accumulated evils of restrictions, embargoes, non-intercourse acts, and open war, the Americans could establish manufactories of large extent, what will they not do, now when peace

is restored, provided they are indulged with an uninterrupted commerce with our colonies? If they have already made such rapid advances as to give this country serious cause of alarm, can it be supposed that American forbearance will abstain from future enlargement, purely from a complaisant acknowledgment of any favours and commercial indulgences we can give them? On the contrary, their dispositions will lead them to take advantage of our weakness, instead of reciprocating our benefits. Some may suppose, that the late war had in itself a tendency to encourage the manufactures of America, by ways and means inseparable from hostility and diminished importation, thereby affecting their extension; and consequently, that a continuation of restrictive measures on our part, would still more advance the views of the enemy. To this we answer, that although it may be very possible for war to give a *bias* to the manufactures of a nation; *it can do no more: peace* and commerce, are essential to their further progress. War, it may be admitted, has given *that* bias to American manufactures: to the necessities of the nation we may in part attribute the progress that they have made; but to make any greater advances, at least *alarming ones*, requires finances, recruits of artisans, access to European manufactories, models of machines, public credit, and other adventitious supports, derivable only from peace and widely extended commerce.

What then is the precise situation of the two countries? Great Britain has a competitor, formidable from her natural advantages, which, at present may be *restrained;* but which, if permitted to flourish, will undoubtedly overwhelm her. Two trees growing near each other in the forest, will rarely stop at the same point of stature; one will overgrow, shade, and render the other unhealthy; but if the aspiring tree be lopped, although it may afterwards produce some branches of unnatural vigour, and increased verdure, yet it will scarcely ever recover its loss of stature, being shrouded in its turn by the opposing tree. America, then, is the aspiring tree: she has reared her head, and extended her branches, threatening to cover the aged and venerable oak of British power and grandeur, from the influence of the solar rays of manufactures and commerce. The growth of the American pine must therefore be checked, ere those baneful consequences arise from her competition. . . .

10.[1] There can be no doubt that *agriculture* has a tendency to produce a more abundant and more healthy population than that which springs from *manufactures;* but agriculture and manufactures act and re-act upon each other for their mutual benefit; for the greatest and most important branch of the commerce of every nation is that which is carried on by the inhabitants of the towns and cities with those of

[1] Bristed, John, *America and Her Resources,* pp. 52-57. London, 1818.

Editor's Note.—John Bristed (1778-1855) was born in England. In 1806 he came to the United States. His work, *America and Her Resources* (1818), was first published in the United States under the title *Resources of the United States.*

the country. The townsmen draw from the people of the country the rude produce, the fruits of the soil, for which they pay by sending back into the country a part of this rude produce manufactured and prepared for immediate use; or, in other words, this trade between town and country consists in a given quantity of rude produce being exchanged for a given quantity of manufactured produce. Whatever, therefore, has a tendency, in any country, to diminish the progress of manufactures, has also a tendency to diminish the home market, (the most important of all markets for the rude produce of land) and consequently to cripple the efforts of agriculture.

In young and lately established countries, however, where the population is *not*, as yet, sufficiently numerous to answer fully the demand for labour; it is perhaps more advisable to confine their attention chiefly to the raising of rude produce, to the clearing new lands, and cultivating those already reclaimed; because they can import manufactured goods from an old and thickly peopled country, at a cheaper rate than they can fabricate them in their own; and they will more rapidly increase the number, strength, and wealth of their people by so doing, than by consuming a larger quantity of capital in forming manufactured goods of a worse quality, and at a higher price than that for which they can bring them from abroad. Besides, as the wages of labour are so high, and land so cheap, in the United States (and in all new countries), there is a continual bounty offered to labourers to leave their manufacturing masters, and go and buy land, and till it for themselves; since every man, who has any proper feeling of independence beating at his heart, would rather toil for himself and his family, as an uncontrolled yeoman, than labour as a confined servant to a stranger. Whence the manufacturers would be (as indeed they are daily and hourly in the United States), liable to frequent interruptions in their proceedings, and suffer much prejudice in their trade, enhancing the price and deteriorating the quality of their wares; all which evil must ultimately fall upon the consumers, and necessarily entail a burdensome impediment upon the productive exertions of the community.

The United States, therefore, it should seem, would do well *not* anxiously to endeavour to *force* the production of manufactures by government bounties, by protecting or prohibitory duties, by monopoly prices, before an effectual demand shall be made for them by an increased density of population along the seaboard, and in the interior; by the more minute division of labour, and by the more complete filling up of the other channels of trade and agriculture. Nay, perhaps it would be wiser, for some years yet to come (until the wilderness be reclaimed, and the population be more compact), for the Americans to confine themselves chiefly to the raising of raw materials, and let Europe continue to be the workshop where those raw materials might be manufactured; because experience has uniformly shown that no nation has ever yet pushed its manufactures to any great extent,

without introducing and continuing a very alarming quantity of misery and disease, decrepitude, vice, and profligacy, among the lower orders of the people; and this to the statesman, who measures the strength and greatness of a nation by the health and virtue, the prosperity and happiness, of its citizens, seems too great a price to pay for the privilege of manufacturing a few yards of broadcloth, or a few pieces of muslin. England herself is a portentous illustration of this truth: recently, and for the last five and twenty years, her *manufacturing* districts have sent forth full bands of Luddites, and Spenceans, and jacobins, and anarchists, and rebels, and assassins, that have continually put to the test the strength, and strained the nerves of her government. . . .

But as the introduction of manufactures into, and their extended increase in a country, generally promise large profits to speculators and capitalists, it is *not* to be expected that the mere circumstance of manufactures being destructive of the virtue, health, and happiness of the labourers employed in them, will ever be of sufficient weight to deter any nation from introducing and establishing these nurseries of individual wealth, and widespread poverty, among themselves, whenever an opportunity shall occur. The wages of labour in the United States are at least one hundred per cent. higher than in England, and quadruple those of France; and yet the agricultural products of this country find a profitable market in Europe; while the expense of erecting and continuing manufacturing establishments is such as, in many instances, to disable them from competing with those of Europe, unless protected by bounties, prohibitory duties, and a monopoly. The cause of these apparently contradictory effects is to be found in the vast quantity and low price of our new and fertile lands. One man is able to spread his agricultural labour over a much wider surface of soil in the immense regions of America, than can be done in the comparatively small and circumscribed districts into which the European farms are necessarily divided, on account of the narrow limits of territory, coupled with a crowded population. Hence, although the system of agriculture in the United States is less perfect, and less productive on a given quantity of ground, than in some parts of Europe, yet the far wider range of land under cultivation (about three times as many acres as make up the whole superficies of the British isles) produces annually a more abundant crop, in mass, to the industry of a given number of proprietors.

Formerly, some of our leading politicians professed to think it more advisable for the United States to prosecute the labours of agriculture, than to attempt to force manufactures into a premature and pernicious existence. Mr. Jefferson, in his "Notes on Virginia," strenuously labours this point, and pathetically depreciates the hour when the American people shall be converted from robust and virtuous farmers into sickly and profligate manufacturers. But he has lately altered his opinion, as appears from his recent letter to the Secretary of the

Society for encouraging American manufactures, in which he seems to have forgotten all his former exclamations in favour of agriculture, and all his "*Jeremiades*" against manufactures. In order to accomplish their purpose, this Society, consisting of manufacturers all over the Union, is continually beseeching and besieging Congress to exclude all foreign goods from the United States, and give them a monopoly of the American market; that is, in other words, to lay a heavy tax upon all the other classes of the community, the farmers, clergy, lawyers, merchants, physicians, and all the labouring orders, that a few manufacturers, about a *hundredth* part of the whole population, may enrich themselves by selling to their fellow-citizens bad goods, at a much greater price than they could import far better commodities from Europe.

This is, in fact, checking the growth of the wealth and population of the United States, by *at least* all the difference between the monopoly price of American manufactures and the fair competition price of imported European goods; to do which, might, indeed, be very good patriotism, but it is certainly very bad policy. The United States having but recently commenced their national career, and looking forward to many ages of improvement and growth, should be, above all other countries, particularly careful to avoid the errors of the European mercantile system; errors which sprang up amidst the darkness and ignorance of feudal despotism; and which all the most distinguished political philosophers of the present age unite to condemn. The United States, therefore, should resolutely cast from off their shoulders all the shackles of bounties, protections, prohibitions, and monopolies, and permit agriculture, commerce, and manufactures, to find the legitimate level of unimpeded competition, and to employ just so much of the productive industry and capital of the country as *individual* inclination and interest might require, without any interference on the part of the government, which ever acts the wisest part, when it suffers all the various classes of the community to manage their own affairs in their own way. *Laissez nous faire* was the reply of the French merchants to M. Colbert, when he attempted to build up the dilapidated commerce of France, by ministerial intermeddling with what no minister can possibly either direct or understand so well as the merchants themselves.

Besides, every free country manufactures as fast as its wants and interests demand; because every country, as well as every individual, prefers a *home* to a foreign market, for the purpose of barter, sale, and purchase. Nevertheless, the interests of agriculture are quite inadequate to contend with the spirit of encroachment and monopoly so inherent in the very nature of manufacturers. Manufacturers enjoy a great advantage over the farmers, who are scattered thinly throughout the country, in the facility of combining together, and acting in large bodies, so as to compel the government to listen to their complaints. Their standing committees, and eternal clamour about the

dignity of patriotism, and the necessity of not depending on foreign nations for articles of use and convenience, are always an overmatch for the yeomen, who, widely separated from each other, cannot act in such close concert, nor with such efficient activity and perseverance. Add to which, many of the Members of Congress, themselves farmers, and therefore peculiarly representing the agricultural interests, are deeply engaged in manufactures and banks; whence they are not so clear-sighted to the evils of a monopoly, on the part of the manufacturers, as they otherwise might be.

11.[1] During the late war with England, manufactures thrived in the United States, precisely because they had a monopoly of the home market, and compelled the consumer to pay about a hundred per cent. more for goods of an inferior quality to those which might have been imported from Europe at half the price, if our ports had been open for the admission of foreign commodities. At that period there was a capital of about $1,000,000,000 employed in carrying on American manufactures; but on the return of peace, the influx of European goods reduced the price to at least one-half, and stopped perhaps more than half of the manufacturing establishments in the Union; so that the capital now employed in American manufactories scarcely reaches the sum of five hundred millions of dollars. Nevertheless, our manufacturers are convinced that continuing this war monopoly, and compelling the American people to pay a double price for all their articles of consumption, would materially promote the national welfare of the United States. Whether or not the general government is to be borne down by this incessant clamour, and sacrifice the interests of the rest of the community to those of a very small portion of that community, remains yet to be seen. The President, in his Message of the 2d of December, says, "Our manufactures will require the continued attention of Congress: the capital employed in them is considerable, and the knowledge acquired in the machinery and fabric of all the most useful manufactures is of great value; their preservation, which depends on *due encouragement*, is connected with the high interests of the nation."

Few nations, however, can boast of skill and ingenuity in manufactures, and especially improvements in labour-saving machinery, equal to those which have been exhibited and discovered in the progress of the mechanical arts in the United States. The causes of this superior ingenuity and skill are various. The high price of labour, and the comparative scarcity of labourers, offer a continual bounty of certain and immediate remuneration to all those who shall succeed in the construction of any machinery that may be substituted in the place of human labour. Add to this, the entire freedom of vocation enjoyed by every individual in this country. Here there are no *compulsory apprenticeships;* no town and corporation restraints, tying each man down to his own peculiar trade and calling, as in Europe; the whole,

[1] *Ibid.*, pp. 57-65.

or nearly the whole of which still labours under this remnant of feudal servitude. In the United States every man follows whatever pursuit, and in whatever place, his inclination, or opportunity, or interest prompts or permits; and consequently a much greater amount of active talent and enterprise is employed in individual undertakings here than in any other country. Many men in the United States follow various callings, either in succession or simultaneously. One and the same person sometimes commences his career as a farmer, and, before he dies, passes through the several stages of a lawyer, clergyman, merchant, congress-man, soldier, and diplomatist. There is also a constant migration hither of needy and desperate talent from Europe, which helps to swell the aggregate of American ingenuity and invention; and the European discoveries in art and science generally reach the United States within a few months after they first see the light in their own country, and soon become amalgamated with those made by Americans themselves.

For information respecting the manufactures of the United States, the reader is referred to General Hamilton's "Report on the subject of Manufactures," made in the year 1791, when he was Secretary of the Treasury, in consequence of an order of the House of Representatives. It is not too much to say, that this is one of the ablest State Papers which ever came from the pen of man. See also the list of American patents, published by order of Congress; Mr. Tench Coxe's "View of the United States"; Mr. Fessenden's "Register of the Arts"; Dr. Redman Coxe's "Emporium of the Arts and Sciences"; and Mr. Pitkin's "Statistics of the United States."

The following very slight summary of American manufactures is all that the limits of the present work will allow.

What the present annual value of manufactures in the United States is has not been ascertained; but, before the peace of 1815 had reduced their monopoly price, and diminished the number of manufacturing establishments, their yearly value was estimated thus:

Manufactures of Wood	$25,000,000
Leather	24,000,000
Soap and Tallow Candles	10,000,000
Spermaceti Candles & Oil	500,000
Refined Sugar	1,600,000
Cards	300,000
Hats	13,000,000
Spirituous and malt liquors	14,000,000
Iron	18,000,000
Cotton, Wool, and Flax	45,000,000
Making a Total of	$151,400,000

Of this amount nearly the whole is consumed at home, as appears from the following table of Exports:

Years.	EXPORTS OF MANUFACTURES.		Total of both.
	From domestic materials.	From foreign materials.	
1803	$ 790,000	$565,000	$1,350,000
1804	1,650,000	450,000	2,100,000
1805	1,579,000	721,000	2,300,000
1806	1,889,000	818,000	2,707,000
1807	1,652,000	468,000	2,120,000
1808	309,000	35,000	344,000
1809	1,266,000	240,000	1,506,000
1810	1,359,000	558,000	1,917,000
1811	2,062,000	314,000	2,376,000
1812	1,135,000	220,000	1,353,000
1813	372,000	18,000	390,000
1814	233,200	13,100	246,000
1815	1,321,000	232,000	1,553,000
1816	1,415,000	340,000	1,755,000

The manufactures from foreign materials are spirits from molasses, refined sugar, chocolate, gunpowder, brass and copper, and medicines. The manufacture of *wool* is extending rapidly in the United States. The Merino breed thrives well in this climate, and their number is augmenting fast throughout the Union. The whole number of sheep already reaches nearly twenty millions, and is continually increasing. The British Isles maintain about thirty millions of sheep; only one-third more than the American sheep, of all kinds, taken together; and the United States can easily support twenty times their present number. In the articles of iron and hemp, and more especially hemp, the United States, probably, will soon be independent of Russia and the rest of the world. The culture of hemp succeeds in many parts of the Union, especially in Kentucky, which, in one year, produced upwards of one hundred and twenty thousand hundred-weight, valued at $70,000 and made also, in the same year, forty thousand hundred-weight of cordage, valued at $400,000, making a million and one hundred thousand dollars for these two articles. The manufacture of cotton increases rapidly here; and the quantity consumed in the country, on the average of the years 1811, 1812, and 1813, exceeds twenty millions of pounds weight.

The manufactures of *wood* are household furniture, carriages of

every kind, and ship-building, and pot and pearl ashes. The manufactures of *leather* are boots, shoes, harness, and saddles. Soap and tallow candles are manufactured both in establishments and in families. Cotton, wool, and flax, are manufactured both in establishments and in families. Iron abounds in the United States: fifty thousand tons of bar iron are consumed annually, of which forty thousand are manufactured at home, and ten thousand imported. Sheet, slit, and hoop iron, are almost wholly of home manufacture; as are cut nails, three hundred tons of which are annually exported. Cutlery, and finer specimens of hardware and steel work, are still imported from Britain. Of the copper and brass manufactured, the zinc is chiefly, and the copper wholly, imported. Of the tin ware, the sheets are all imported. Lead is made into shot; and colours of lead, red and white lead, are imported to a large amount. Plated ware is made in large quantities in Philadelphia, New York, Boston, Baltimore, and Charleston. The manufacture of gunpowder nearly supplies the home market, as do coarse earthen ware, window glass, glass bottles, and decanters. About a million bushels of salt are manufactured annually, and three times that quantity imported. White crockery ware is said to be made in Philadelphia of as good quality as any in England.

Saltpetre is manufactured largely in Virginia, Kentucky, Massachusetts, East and West Tennessee. Sugar from the maple tree is produced in Ohio, Kentucky, Vermont, and East Tennessee, to the amount of nearly ten millions of pounds weight annually. West Tennessee and Vermont afford abundance of good copperas. Twenty-five millions of gallons of ardent spirits are annually distilled, and annually consumed in the United States. Four hundred water and horse-mills, working one hundred and twenty thousand spindles, are employed in spinning cotton. The fulling-mills amount to two thousand; and the number of looms exceeds four hundred thousand; and the number of yards of cloth, manufactured from wool, cotton, and flax, is about one hundred millions. There are three hundred gunpowder-mills; six hundred furnaces, forges, and bloomeries, and two hundred paper-mills.

In the state of Vermont the chief manufactures are of iron, lead, pipe-clay, marble, distilleries, maple-sugar, flour, and wool. In Massachusetts, the principal manufactures are duck, cotton, woollen, cut-nails (by a machine invented in Newburyport, and capable of cutting two hundred thousand in a day), paper, cotton and wool cards, playing cards, shoes, silk and thread lace, wire, snuff, oil, chocolate and powder-mills, iron-works, and slitting-mills, and mills for sawing lumber, grinding grain, and fulling cloth, distilleries, and glass. In Rhode Island are manufactured cotton, linen, and tow cloth, iron, rum, spirits, paper, wool and cotton cards, spermaceti, sugar, machines for cutting screws, and furnaces for casting hollow-ware. In Connecticut are manufactured silk, wool, card-teeth (bent and cut by a machine to the number of eighty-six thousand in an hour), buttons, linen, cotton, glass, snuff, powder, iron, paper, oil and very superior fire-arms. In New York are

manufactured wheel carriages of all kinds, the common manufactures, refined sugar, potter's ware, umbrellas, musical instruments, glass, iron, and steam-boats. In New Jersey are numerous tanneries, leather manufactories, iron-works, powder-mills, cotton, paper, copper-mines, lead mines, stone and slate quarries. In Pennsylvania there are valuable collieries on the Lehigh river, distilleries, rope-walks, sugar-houses, hair-powder manufactories, iron founderies, shot manufactories, steam-engines, mill machinery, the pneumatic cock for tapping air-tight casks, hydrostatic blow-pipe, type-foundries, improvements in printing, and a carpet manufactory. In Delaware there are cotton and bolting-cloth and powder manufactories, fulling, snuff, slitting, paper, grain, and saw-mills. In Maryland are iron-works, collieries, grist-mills, glass-works, stills, paper-mills, and cotton. In Virginia there are lead-mines, which yield abundantly, iron mines, copper mines, vast collieries, and marble quarries. In Kentucky are manufactured cotton, wire, paper, and oil. In Ohio shipbuilding is carried to a great extent; indeed, in this branch of manufactures the Americans generally surpass the mechanics of all other countries. In North Carolina the pitch-pine affords excellent pitch, tar, turpentine, and lumber; there are also iron-works, and a gold mine, which has furnished the mint of the United States with a considerable quantity of virgin gold. In South Carolina there are gold, silver, lead, black-lead, copper and iron mines, as also pellucid stones of different hues, coarse cornelian, variegated marble, nitrous stone and sand, red and yellow ochres, potter's clay, fuller's earth, and a number of dye-stuffs, chalk, crude alum, sulphur, nitre, and vitriol. In Georgia the manufactures are indigo, silk, and sago. In Louisiana are manufactured cotton, wool, cordage, shot, and hair-powder.

Of the many places in the Union well adapted for manufacturing establishments, it is sufficient, at present, to notice the few following: The town of Paterson, in the State of New Jersey, is, perhaps, as excellently situated for this purpose as any spot in the world. The falls of the Passaic river afford every convenience that water can give to put in motion machinery to any extent. In 1791, a Manufacturing Company was incorporated by the New-Jersey Legislature, with great privileges. A subscription for the encouragement of every kind of manufacture was opened, under the patronage of the Secretary of State; five hundred thousand dollars were subscribed, and works erected at the falls of the Passaic. During the late war, the Paterson manufactures flourished, and were rendered profitable to the proprietors by their monopoly price. Since the peace they have declined considerably; but there still remain some valuable cotton and paper manufactories; and so admirable is the situation of the place, that manufactures cannot fail to flourish there as fast and as abundantly as the wants and inclination, and interest of the United States demand. The manufacture of sugar, from the cane, thrives well; and is increasing rapidly in Louisiana and Georgia.

There is no part of the world, probably, where, in proportion to its population, a greater number of ingenious mechanics may be found than in the city of Philadelphia, and its immediate neighbourhood; or where, in proportion to the capital employed, manufactures thrive better; and certainly, more manufacturing capital is put in motion in that than in any other city of the Union. The town of Wilmington, and its vicinity, in the State of Delaware, are, for their size, the greatest seats of manufactures in the United States; and are capable of much improvement, the country being hilly, and abounding with running water. The Brandywine river might, at a comparatively small expense, be carried to the top of the hill on which Wilmington is situated, and make a fall sufficient to supply fifty mills, in addition to those already built. The town of Pittsburgh, in the State of Pennsylvania, situated beyond the Alleghany hills, on the confluence of the Monongahela and Alleghany rivers, where their junction forms the Ohio, promises, in the course of a few years, to become the Birmingham of America. It has coal in all abundance, and of a very superior quality; its price is not quite three-pence sterling a bushel. It is supposed that the whole tract of country between the Laurel Mountain, Mississippi, and Ohio, yields coal. Pittsburgh, in addition to various other manufactures, is said to make glass bottles, tumblers, and decanters, of equal quality to any that are imported from Europe. It has an inland navigation, interrupted only by the falls at Louisville, of two thousand four hundred miles down the Ohio and Mississippi to New Orleans, and an inexhaustible market for its manufactures in all the States and settlements on the border of those mighty rivers.

The Tariff of 1816

12.[1] On the 13th February, Mr. Dallas, Secretary of the Treasury, in obedience to a resolution of the House, of 23rd February 1815, transmitted to Congress an elaborate report, on the subject of a general tariff of duties, comprehending a view of its incidents upon the peace establishment, a statement of the general principles for reforming it, including the means of enforcement and a schedule of articles, with the rates of duty proposed for the consideration of Congress.

. . . . . .

The Secretary set forth the claims to protection of American Manufactures, which owed their existence, particularly those which had been introduced during the restrictive system and the war, exclusively to the capital, skill, enterprise and industry of private citizens. Their preservation from the ruin to which they would be exposed by foreign competition, became "a consideration of general policy, to be resolved by a recollection of past embarrassments, by the certainty of an increased difficulty of reinstating, upon any emergency, the manufactures

[1] Bishop, J. Leander, *A History of American Manufactures from 1608 to 1860*, vol. ii, pp. 221-225. Philadelphia, 1864. See note p. 9.

which should be allowed to perish and pass away, and by a just sense of the influence of domestic manufactures upon the wealth, power, and independence of the government."

From the imperfect information he was able to obtain, the Secretary made the following classification of American Manufactures.

First.—Those which were firmly and permanently established, and which wholly or almost wholly supplied the demand for domestic use and consumption. They embraced the following articles—cabinet-ware and all manufactures of wood; carriages of all descriptions; cables and cordage; hats of wool, fur, leather, chip or straw, and straw bonnets; iron castings, fire and side arms, cannon, muskets, pistols; window glass; leather and all manufactures of leather, including saddles, bridles, and harness; paper of every description, blank books; printing types.

Second.—Manufactures which, being recently or partially established, do not at present supply the demand for domestic use and consumption; but which, with proper cultivation, are capable of being matured to the whole extent of the demand. These embraced cotton goods of the coarser kinds; woolen goods of the coarser kinds generally, and some of the finer kinds; metal buttons, plated wares, iron manufactures of the larger kinds, shovels, spades, axes, hoes, scythes, etc., nails large and small; pewter, tin, copper and brass manufactures; alum, copperas; spirits, beer, ale, and porter.

Third.—Manufactures which were so slightly cultivated, as to leave the demand of the country wholly, or almost wholly, dependent upon foreign sources for a supply. This comprised cotton manufactures of the finer kinds, muslins, nankeens, chintzes, stained and printed cottons of all descriptions; linen of all descriptions, linen cambrics, lawns; hempen cloths, sail cloth, Russian and German linens; silk goods of all descriptions; woolen goods of many descriptions, worsted goods of all kinds, stuffs, camblets, blankets, carpets, and carpeting; hosiery of all descriptions, including knit or woven gloves; hardware and iron mongery, excepting the large articles, cutlery, pins and needles; china ware, earthenware, porcelain; glass of all descriptions except window glass and phials.

Duties amounting, wholly or nearly, to a prohibition of similar articles imported, it was conceived might be laid upon the first class, and a well directed legislative patronage would not only preserve the second class, but speedily raise them to the condition of the first class. The cost to the consumer would, in the first case, be kept down by competition, and in the second would not be necessarily increased. The inconvenience would be but temporary, while the future advantages to the nation would be great, and particularly to the agriculturist, who would thereby find a ready market in his own neighbourhood for his cotton, wool, and produce.

Upon the third class, the rate of duty could be adjusted simply with reference to revenue.

The tariff of duties proposed by Mr. Dallas, in accordance with these general principles, was from ten to thirty-three and one-third, and in one case forty per cent. higher on all the principal articles of manufacture, forty-four in number, than the rates finally adopted. On cotton goods, which by the old tariff paid twelve and a half per cent., Mr. Dallas proposed thirty-three and a half, which was reduced to twenty-five per cent. On china, pottery, glass (other than window), it was reduced from thirty to twenty per cent., and hammered bar and bolt iron from seventy-five cents to forty-five cents per hundredweight.

On the same day that the Secretary's report was sent in, Mr. Newton, of Virginia, from the Committee of Commerce and Manufactures, to whom had been referred the memorials of the manufacturers of cotton wool, also made a report, from which we have presented, on a previous page, some statistics of that industry.

It stated the consumption of cotton to have increased from five hundred bales, in the year 1800, to ninety thousand bales in 1815, the capital employed to amount to forty millions of dollars, and the value of the product to be twenty-four millions. An increase of the duties on imports was urged in a lengthy and forcible argument, in favor of the general policy of protection to manufactures.

"The American manufacturers," say the committee, "have good reasons for their apprehensions—they have much at stake. They have a large capital employed and are feelingly alive for its fate. Should the National Government not afford them protection, the dangers which invest and threaten them will destroy all their hopes, and will close their prospects of utility to their country. A reasonable encouragement will sustain and keep them erect; but, if they fall, they fall never to rise again.

"The foreign manufacturers and merchants know this; and will redouble with renovated zeal the stroke to prostrate them. They also know, that should the American manufacturing establishments fall, their smouldering piles—the visible ruins of a legislative breath—will warm all who shall tread in the same footsteps of their doom, the inevitable destiny of their establishments. . . . Do not the suggestions of wisdom plainly show, that the security, the peace, and the happiness of the nation, depend on opening and enlarging all our resources, and drawing from them whatever shall be required for public use or private accommodation? The Committee, from the views which they have taken, consider the situation of manufacturing establishments to be perilous. Some have deceased and others have suspended business. A liberal encouragement will put them again into operation with increased powers; but should it be withheld they will be prostrated. Thousands will be reduced to want and wretchedness. A capital of near sixty millions of dollars will become inactive, the greater part of which will be a dead loss to the manufacturers. Our improvidence may lead to fatal consequences. The powers jealous of our growth and

prosperity will acquire the resources and strength which this Government neglects to improve."

13.[1] In this bill, embracing the schedule reported by Mr. Dallas, the *minimum* principle, as applied to certain foreign goods, was first adopted in connection with low-priced cottons. Its object was virtually to exclude the coarse, low-priced India cottons, then imported in large quantities, alike to the prejudice of the American manufacturer and cotton grower. The introduction of the minimum valuation has been ascribed to Mr. F. C. Lowell, of Massachusetts, who secured for it the advocacy of Messrs. Lowndes and J. C. Calhoun; and those gentlemen, with other representatives from South Carolina and the Southern States, were, during the discussion of the bill, among the ablest supporters of the principle of protection, apparently without any suspicion of the unconstitutionality of the measure, which was afterward discovered in that quarter. There was a difference of opinion as to the degree of protection required, or that was proper to be granted through the tariff; but a general concurrence in the propriety and necessity of the measure at that particular crisis. Many regarded the faith of the Government as involved in the support of manufactures, created by its restrictive measures and the war, and which had, to so great an extent, been the dependence of the country during that period. A portion of the commercial and landed interests, which had suffered from the causes that created and sustained manufactures, now felt themselves entitled to be relieved from all unnecessary burthens in support of an industry which had thriven during their embarrassments. They were disposed to limit the duties to such rates and duration as was compatible with the object which all were disposed to cherish. Mr. Clay, to try the sense of the House as to the extent to which it was willing to go in protecting domestic manufactures, moved to amend the bill by increasing the duty on imported cottons from twenty-five to thirty-three and one-third per cent.—afterward reduced to thirty—and advocated a thorough and decided protection by ample duties, as did also Mr. Ingham, of Pennsylvania, who stated that not less than one hundred millions were believed to have been invested in manufactures within the last eight or ten years; all of which was endangered by the accumulated amount, cheapened cost, and improved quality of foreign manufactures. The commercial interests were well defended by Mr. Smith, of Maryland, and Daniel Webster, then a representative from New Hampshire, both of whom favored moderate protection. Mr. Webster, who considered permanency, rather than a high duty, desirable, proposed a maximum duty on cottons of thirty per cent., to be reduced after two years to twenty-five, and in two more to twenty per cent. He endeavored to avert the sudden destruction of the India trade, which was stated to employ forty ships, capable of carrying one thousand bales, of eighteen hundred yards each,

[1] *Ibid.*, pp. 226-229.

or a total of seventy-two million yards of cloth, worth nearly six and a half millions of dollars, which value, with the eighteen million pounds of cotton consumed in its manufacture, was so much taken from the industry of the United States. Under the minimum provision of the bill, by which cotton cloths (except nankeens from China), the original cost of which, at the place whence imported, was less than twenty-five cents the square yard, were to be deemed to have cost twenty-five cents, and to pay duty accordingly, the trade in India cottons was intended to be arrested. Mr. Pickering, of Massachusetts, who did not believe the existing manufactures required a duty of twenty-five per cent., for two years, moved in Committee of the Whole to strike out that clause, but found few supporters. Afterward, before the House, he moved to amend it by a return to the old double duties, and during the discussion, Mr. Randolph, who was disposed to encourage none but household or family manufactures, again moved to strike out the minimum proviso. This drew from Mr. Calhoun an earnest defence of the principle of protection, upon grounds of prudence and national policy, as well as of justice to manufacturers, which had originated in the public necessity of the times. The bill was then carried by a vote of eighty-eight to fifty-four, and was approved on the 27th. Mr. Wright, of Maryland, proposed to exclude the votes of members interested in cotton manufactures. The duty on woolen manufactures, except blankets, rugs, and worsted or stuff goods, was fixed at twenty-five per cent. ad valorem for three years, from 30th June, and on cotton cloths, twist yarn, or thread, at twenty-five per cent., for the same time, after which, cottons were to pay twenty per cent. ad valorem. The minimum valuation of cotton cloths was, in effect, a specific duty of six and a quarter cents a yard, and was also applied to unbleached and uncolored cotton, twist yarn or thread, costing less than sixty cents a pound, and to bleached or colored yarn, costing less than seventy-five cents per pound.

By this act a discrimination was first made between hammered and rolled bar iron, which, under the permanent duties, had paid alike fifteen per cent., and double rates during the war. On hammered iron, chiefly made in Russia and Sweden, a duty of seventy-five cents per cwt. was proposed, but was reduced, on motion of Mr. Webster, to forty-five cents, or nine dollars per ton, equivalent to about thirteen per cent. upon its first cost. On rolled iron, which was made in England, by the new and cheaper process, at about half the price of the former, the duty was one dollar and fifty cents per cwt., or thirty dollars per ton, equal to about eighty-five per cent. on its cost. This difference was the subject of remonstrance by Great Britain, as a departure from the provisions of the Convention of July 3, 1815.

The principal foreign manufactures and products were admitted at the following ad valorem rates, calculated on the net cost at the place whence imported, exclusive of packages, commissions, and exchanges, with the usual twenty and ten per cent. additional, viz:

At seven and a half per cent., ad valorem, saltpetre, jewelry, watches, gold and silver wares, laces etc.; at fifteen per cent., gold leaf, and articles otherwise free; at twenty per cent., hempen, or sail-cloth (except Russian, German, and Holland linen and duck), cotton and wool stockings, types, brass, copper, iron, steel, pewter, lead and tin wares, brass wire, cutlery, pins, needles, buttons and moulds, buckles, gilt, plated and japanned wares, cannon, muskets, fire and side arms, Prussian blue, china, earthen, stone and porcelain wares, glass, other than window, and black quart bottles; at twenty-five per cent., cotton and woolen goods; at thirty per cent., umbrellas, parasols, and parts thereof, bonnets and caps, artificial flowers and millinery, hats and caps of all kinds, painted floor cloths, mats, salad oil, mustard, pickles, sweetmeats, wafers, cabinet wares, and all manufactures of wood, carriages and parts thereof, leather and manufactures of leather, paper, pasteboard, paper hangings, blank books, parchment vellum, brushes, canes, whips, and ready made clothing.

The following specific duties were laid, viz: on ale, beer, and porter bottled, fifteen cents, unbottled, ten cents a gallon; alum and copperas, one dollar a cwt.; black glass bottles, one dollar and forty-four cents per gross; window glass from eight by ten and under to ten by twelve in size, one dollar and fifty cents to three dollars and twenty-five cents per hundred square feet; boots, one dollar and fifty cents; shoes and slippers of silk, thirty cents, of leather, twenty-five cents, children's, fifteen cents per pair; tallow, whiting, and Paris white, ochre dry (in oil one and a half cents); lead in pigs, bars, or sheets, one cent; spikes, shot of lead, two cents; bristles, tarred cordage and cables, tallow candles, cotton, chocolate, red and white lead, nails, soap, brown sugar, etc., three cents; white clayed or powdered sugar, untarred cordage, yarns, twines, packthread and sieves, copper and composition rods, bolts, spikes or nails, four cents; coffee, glue, iron or steel wire, not exceeding No. 18, five cents; wire over No. 18, nine cents; wax and spermaceti candles, six cents; gunpowder, eight cents; cheese, nine cents; lump sugar and manufactured tobacco, ten cents; loaf sugar, sugar candy, and snuff, twelve cents; indigo, fifteen cents a pound; coal, five cents the heaped bushel; salt, twenty cents a bushel; spirits from grain, forty-two to seventy-five cents, and from other materials, thirty-eight to seventy cents, according to proof; molasses, five cents; wines, twenty-five cents to one dollar a gallon; anchors, rolled bar, and bolt iron, one dollar and fifty cents, hammered iron, forty-five cents, iron in sheets, rods and hoops, two dollars and fifty cents per cwt.; Russian duck, two dollars, ravens, one dollar and twenty-five cents, Holland, two dollars and fifty cents per piece; segars, two dollars and fifty cents per thousand; teas, twelve to sixty-eight cents per pound; olive and spermaceti oils, twenty-five cents, whale and other fish oils, fifteen cents a gallon.

This tariff, though falling far short of the measure of protection, which the more ardent friends of manufactures felt themselves en-

titled to, was accepted as an advance upon the permanent duties to which they were about to return. Although, upon the whole, as much calculated to benefit the farming and planting interests, which had opposed it, as the manufacturing, it doubtless averted the speedy ruin, which would otherwise have overtaken several branches, and probably destroyed the cotton manufacture altogether. The benefits expected from it increased very greatly, however, the competition in manufactures, and with the decline in prices that soon followed, as a result of improved machinery, and increased enterprise abroad, and the resumption of specie payments, brought the severest distress upon the manufacturing classes.

The immediate effect of its operation upon the accumulated supplies of foreign manufactures, which began to flood the country after the peace, was to replenish the public treasury, of which the receipts from customs during the year amounted to $36,306,874, or seventy-three per cent. above the estimate, and more than double the maximum before the embargo, when it reached $16,363,550, in 1807. The total amount of ad valorem duties, at twenty-five per cent., chiefly on cottons and woolens, paid in 1815 and 1816, was $28,826,419. The foreign imports retained for consumption were double the value of domestic exports, which were greater than that of any previous year, by nearly fifty per cent. The total imports exceeded one hundred and forty-seven millions in value.

CHAPTER III

CURRENCY AND BANKING: 1791 TO THE ESTABLISHMENT OF THE SECOND UNITED STATES BANK (1816)

UNIFORMITY in the coinage system of the United States was not introduced until the enactment of the Coinage Act of 1792. While the new coinage system was still under debate Alexander Hamilton set forth at considerable length the arguments both for and against the adoption of the dollar as the monetary unit and the introduction of a bimetallic standard (No. 1).

The establishment of a national or central bank was likewise of great importance to the economic stability of the nation. In his proposals for the chartering of a central bank Hamilton laid down rather minutely the plan for the organization of such an institution (No. 2). Despite opposition, this plan was finally adopted and the First Bank of the United States chartered in 1791. In the prosperous yet trying years that followed this bank played a distinguished rôle (No. 3). Although this institution was a distinct success, its opponents were indefatigable in their efforts to prevent a renewal of its charter. This opposition, which proved effective, was largely the result of the antagonistic attitude of state-chartered banks and the debatable question as to the constitutionality of the federal bank charter.

Hamilton's Views on the Establishment of a Coinage System—1791

1.[1] Contrary to the ideas which have heretofore prevailed, in the suggestions concerning a coinage for the United States, though not without much hesitation, arising from a deference for those ideas, the Secretary is, upon the whole, strongly inclined to the opinion, that a preference ought to be given to neither of the metals [gold or silver], for the money unit. Perhaps, if either were to be preferred, it ought to be gold rather than silver.

The reasons are these:

The inducement to such a preference is to render the unit as little variable as possible; because on this depends the steady value of all

[1] *The Works of Alexander Hamilton* (Constitutional edition), edited by Henry Cabot Lodge, vol. iv, pp. 13-23.. This report was communicated to the House of Representatives on January 28, 1791.

contracts, and, in a certain sense, of all other property. And, it is truly observed, that if the unit belong indiscriminately to both the metals, it is subject to all the fluctuations that happen in the relative value which they bear to each other. But the same reason would lead to annexing it to that particular one, which is itself the least liable to variation, if there be, in this respect, any discernible difference between the two.

Gold may, perhaps, in certain senses, be said to have greater stability than silver: as, being of superior value, less liberties have been taken with it, in the regulations of different countries. Its standard has remained more uniform, and it has, in other respects, undergone fewer changes: as, being not so much an article of merchandise, owing to the use made of silver in the trade with the East Indies and China, it is less liable to be influenced by circumstances of commercial demand. And if, reasoning by analogy, it could be affirmed that there is a physical probability of greater proportional increase in the quantity of silver than in that of gold, it would afford an additional reason for calculating on greater steadiness in the value of the latter.

As long as gold, either from its intrinsic superiority as a metal, from its greater rarity, or from the prejudices of mankind, retains so considerable a preeminence in value over silver, as it has hitherto had, a natural consequence of this seems to be that its condition will be more stationary. The revolutions, therefore, which may take place in the comparative value of gold and silver, will be changes in the state of the latter, rather than in that of the former.

If there should be an appearance of too much abstraction in any of these ideas, it may be remarked, that the first and most simple impressions do not naturally incline to giving a preference to the inferior or least valuable of the two metals.

It is sometimes observed, that silver ought to be encouraged rather than gold, as being more conducive to the extension of bank circulation, from the greater difficulty and inconvenience which its greater bulk, compared with its value, occasions in the transportation of it. But bank circulation is desirable, rather as *an auxiliary to*, than as *a substitute for* that of the precious metals, and ought to be left to its natural course. Artificial expedients to extend it, by opposing obstacles to the other, are, at least, not recommended by any very obvious advantages. And, in general, it is the safest rule to regulate every particular institution or object, according to the principles which, in relation to itself, appear the most sound. In addition to this, it may be observed, that the inconvenience of transporting either of the metals is sufficiently great to induce a preference of bank paper, whenever it can be made to answer the purpose equally well.

But, upon the whole, it seems to be most advisable, as has been observed, not to attach the unit exclusively to either of the metals; because this cannot be done effectually, without destroying the office and character of one of them as money, and reducing it to the situa-

tion of a mere merchandise; which, accordingly, at different times, has been proposed from different and very respectable quarters; but which would, probably, be a greater evil than occasional variations in the unit, from the fluctuations in the relative value of the metals; especially, if care be taken to regulate the proportion between them, with an eye to their average commercial value.

To annul the use of either of the metals, as money, is to abridge the quantity of circulating medium, and is liable to all the objections which arise from a comparison of the benefits of a full, with the evils of a scanty circulation.

It is not a satisfactory answer to say, that none but the favored metal would, in this case, find its way into the country, as in that all balances must be paid. The practicability of this would, in some measure, depend on the abundance or scarcity of it in the country paying. Where there was but little, it either would not be procurable at all, or it would cost a premium to obtain it; which, in every case of a competition with others, in a branch of trade, would constitute a deduction from the profits of the party receiving. Perhaps, too, the embarrassments which such a circumstance might sometimes create, in the pecuniary liquidation of balances, might lead to additional efforts to find a substitute in commodities, and might so far impede the introduction of the metals. Neither could the exclusion of either of them be deemed, in other respects, favorable to commerce. It is often, in the course of trade, as desirable to possess the kind of money, as the kind of commodities best adapted to a foreign market.

It seems, however, most probable, that the chief, if not the sole effect of such a regulation would be to diminish the utility of one of the metals. It could hardly prove an obstacle to the introduction of that which was excluded in the natural course of trade; because it would always command a ready sale, for the purpose of exportation to foreign markets. But such an effect, if the only one, is not to be regarded as a trivial inconvenience.

If, then, the unit ought not to be attached exclusively to either of the metals, the proportion which ought to subsist between them, in the coins, becomes a preliminary inquiry, in order to its proper adjustment. This proportion appears to be, in several views, of no inconsiderable moment.

One consequence of overvaluing either metal, in respect to the other, is the banishment of that which is undervalued. If two countries are supposed, in one of which the proportion of gold to silver is as 1 to 16, in the other as 1 to 15, gold being worth more, silver less, in one than in the other, it is manifest, that, in their reciprocal payments, each will select that species which it values least, to pay to the other, where it is valued most. Besides this, the dealers in money will, from the same cause, often find a profitable traffic in an exchange of the metals between the two countries. And hence it would come to pass, if other things were equal, that the greatest part of the gold would

be collected in one, and the greatest part of the silver in the other. The course of trade might, in some degree, counteract the tendency of the difference in the legal proportions, by the market value; but this is so far and so often influenced by the legal rates, that it does not prevent their producing the effect which is inferred. Facts, too, verify the inference: In Spain and England, where gold is rated higher than in other parts of Europe, there is a scarcity of silver; while it is found to abound in France and Holland, where it is rated higher, in proportion to gold, than in the neighboring nations. And it is continually flowing from Europe to China and the East Indies, owing to the comparative cheapness of it in the former, and dearness of it in the latter.

This consequence is deemed by some not very material; and there are even persons who, from a fanciful predilection to gold, are willing to invite it, even by a higher price. But general utility will best be promoted by a due proportion of both metals. If gold be most convenient in large payments, silver is best adapted to the mere minute and ordinary circulation.

But it is to be suspected that there is another consequence more serious than the one which has been mentioned. This is the diminution of the total quantity of specie which a country would naturally possess.

It is evident that, as often as a country, which over-rates either of the metals, receives a payment in that metal, it gets a less actual quantity than it ought to do, or than it would do, if the rate were a just one.

It is also equally evident, that there will be a continual effort to make payment to it in that species to which it has annexed an exaggerated estimation, wherever it is current at a less proportional value. And it would seem to be a very natural effect of these two causes, not only that the mass of the precious metals in the country in question would consist chiefly of that kind to which it had given an extraordinary *value*, but that it would be absolutely less than if they had been duly proportioned to each other.

A conclusion of this sort, however, is to be drawn with great caution. In such matters there are always some local and many other particular circumstances, which qualify and vary the operation of general principles, even where they are just; and there are endless combinations, very difficult to be analyzed, which often render principles, that have the most plausible pretensions, unsound and delusive.

There ought, for instance, according to those which have been stated, to have been formerly a greater quantity of gold in proportion to silver in the United States than there has been; because the actual value of gold in this country, compared with silver, was perhaps higher than in any other. But our situation with regard to the West Indian islands, into some of which there is a large influx of silver directly from the mines of South America, occasions an extraordinary supply of that metal, and consequently a greater proportion of it in our circulation than might have been expected from its relative value.

What influence the proportion under consideration may have upon the state of prices, and how far this may counteract its tendency to increase or lessen the quantity of the metals, are points not easy to be developed; and yet they are very necessary to an accurate judgment of the true operation of the thing.

But, however impossible it may be to pronounce with certainty that the possession of a less quantity of specie is a consequence of overvaluing either of the metals, there is enough of probability in the considerations which seem to indicate it, to form an argument of weight against such overvaluation.

A third ill consequence resulting from it is a greater and more frequent disturbance of the state of the money unit by a greater and more frequent diversity between the legal and market proportions of the metals. This has not hitherto been experienced in the United States, but it has been experienced elsewhere; and from its not having been felt by us hitherto, it does not follow that this will not be the case hereafter, when our commerce shall have attained a maturity which will place it under the influence of more fixed principles.

In establishing a proportion between the metals, there seems to be an option of one of two things:

To approach, as nearly as can be ascertained, the mean or average proportion, in what may be called the commercial world; or,

To retain that which now exists in the United States.

As far as these happen to coincide, they will render the course to be pursued more plain and more certain.

. . . . . .

It has been seen that the existing proportion between the two metals, in this country, is about as 1 to 15.

It is fortunate, in this respect, that the innovations of the Spanish mint have imperceptibly introduced a proportion so analogous, as this is, to that which prevails among the principal commercial nations, as it greatly facilitates a proper regulation of the matter.

This proportion of 1 to 15 is recommended by the particular situation of our trade, as being very nearly that which obtains in the market of Great Britain, to which nation our specie is principally exported. A lower rate for either of the metals, in our market, than in hers, might not only afford a motive the more, in certain cases, to remit in specie rather than in commodities; but it might, in some others, cause us to pay a greater quantity of it for a given sum than we should otherwise do. If the effect should rather be to occasion a premium to be given for the metal which was underrated, this would obviate those disadvantages, but it would involve another—a customary difference between the market and legal proportions, which would amount to a species of disorder in the national coinage.

Looking forward to the payments of interest hereafter to be made to Holland, the same proportion does not appear ineligible. The

present legal proportion in the coins of Holland is stated to be 1 to 14 9/10. That of the market varies somewhat, at different times, but seldom very widely from this point.

There can hardly be a better rule, in any country, for the legal, than the market proportion, if this can be supposed to have been produced by the free and steady course of commercial principles. The presumption, in such case, is, that each metal finds its true level, according to its intrinsic utility in the general system of money operations.

But it must be admitted that this argument, in favor of continuing the existing proportion, is not applicable to the state of the coins with us. There have been too many artificial and heterogeneous ingredients, too much want of order in the pecuniary transactions of this country, to authorize the attributing the effects which have appeared to the regular operations of commerce. A proof of this is to be drawn from the alterations which have happened in the proportion between the metals merely by the successive degradations of the dollar, in consequence of the mutability of a foreign mint. The value of gold to silver appears to have declined wholly from this cause, from 15 6/10 to about 15 to 1. Yet, as this last proportion, however produced, coincides so nearly with what may be deemed the commercial average, it may be supposed to furnish as good a rule as can be pursued.

The only question seems to be, whether the value of gold ought not to be a little lowered to bring it to a more exact level with the two markets which have been mentioned. But as the ratio of 1 to 15 is so nearly conformable to the state of those markets, and best agrees with that of our own, it will probably be found the most eligible. If the market of Spain continues to give a higher value to gold (as it has done in time past) than that which is recommended, there may be some advantage in a middle station.

Hamilton's Proposals for the Establishment of a Central or National Bank—1790

2.[1] That, from the conviction . . . that a national bank is an institution of primary importance to the prosperous administration of the

[1] *The Works of Alexander Hamilton* (Constitutional edition), edited by Henry Cabot Lodge, vol. iii, pp. 388-396. This report was communicated to the House of Representatives on December 14, 1790.

Editor's Note.—In the coinage act of 1792 Hamilton's recommendations were closely followed, a bimetallic standard with a ratio of 15-1 being adopted. Due to the over-valuation of silver the latter was taken to the mint in preference to gold. Since the American dollar weighed slightly less than the Spanish dollar, yet was readily exchangeable for the latter in the West Indies, a large number of Spanish dollars were melted and taken to the United States mint to be exchanged for a larger number of American dollars, which in turn would be taken to the Indies. The failure to maintain silver dollars in circulation led to the temporary discontinuance of their coinage in 1806.

finances, and would be of the greatest utility in the operations connected with the support of the public credit, his attention has been drawn to devising the plan of such an institution, upon a scale which will entitle it to the confidence, and be likely to render it equal to the exigencies of the public.

. . . . . .

It is a fact, well understood, that public banks have found admission and patronage among the principal and most enlightened commercial nations. They have successively obtained in Italy, Germany, Holland, England, and France, as well as in the United States. And it is a circumstance which cannot but have considerable weight, in a candid estimate of their tendency, that after an experience of centuries, there exists not a question about their utility in the countries in which they have been so long established. Theorists and men of business unite in the acknowledgment of it.

Trade and industry, wherever they have been tried, have been indebted to them for important aid, and government has been repeatedly under the greatest obligations to them in dangerous and distressing emergencies. That of the United States, as well in some of the most critical conjunctures of the late war, as since the peace, has received assistance from those established among us, with which it could not have dispensed.

With this twofold evidence before us, it might be expected that there would be a perfect union of opinions in their favor. Yet doubts have been entertained; jealousies and prejudices have circulated; and, though experience is every day dissipating them, within the spheres in which effects are best known, yet there are still persons by whom they have not been entirely renounced. To give a full and accurate view of the subject, would be to make a treatise of a report; but there are certain aspects in which it may be cursorily exhibited, which may perhaps conduce to a just impression of its merits. These will involve a comparison of the advantages, with the disadvantages, real or supposed, of such institutions.

The following are among the principal advantages of a bank:

First.—The augmentation of the active or productive capital of a country. Gold and silver, when they are employed merely as the instruments of exchange and alienation, have been not improperly denominated dead stock; but when deposited in banks, to become the basis of a paper circulation, which takes their character and place, as the signs or representatives of value, they then acquire life, or, in other words, an active and productive quality. This idea, which appears rather subtile and abstract in a general form, may be made obvious and palpable, by entering into a few particulars. It is evident, for instance, that the money which a merchant keeps in his chest, waiting for a favorable opportunity to employ it, produces nothing till that opportunity arrives. But if, instead of locking it up in this manner, he either deposits it in a bank, or invests it in the stock of

a bank, it yields a profit during the interval, in which he partakes, or not, according to the choice he may have made of being a depositor or a proprietor; and when any advantageous speculation offers, in order to be able to embrace it, he has only to withdraw his money, if a depositor, or, if a proprietor, to obtain a loan from the bank, or to dispose of his stock—an alternative seldom or never attended with difficulty, when the affairs of the institution are in a prosperous train. His money, thus deposited or invested, is a fund upon which himself and others can borrow to a much larger amount. It is a well-established fact, that banks in good credit can circulate a far greater sum than the actual quantum of their capital in gold and silver. The extent of the possible excess seems indeterminate; though it has been conjecturally stated at the proportions of two and three to one. This faculty is produced in various ways. 1st. A great proportion of the notes which are issued, and pass current as cash, are indefinitely suspended in circulation, from the confidence which each holder has, that he can, at any moment, turn them into gold and silver. 2dly. Every loan which a bank makes, is, in its first shape, a credit given to the borrower on its books, the amount of which it stands ready to pay, either in its own notes, or in gold or silver, at his option. But, in a great number of cases, no actual payment is made in either. The borrower, frequently, by a check or order, transfers his credit to some other person, to whom he has a payment to make; who, in his turn, is as often content with a similar credit, because he is satisfied that he can, whenever he pleases, either convert it into cash, or pass it to some other hand, as an equivalent for it. And in this manner the credit keeps circulating, performing in every stage the office of money, till it is extinguished by a discount with some person who has a payment to make to the bank, to an equal or greater amount. Thus large sums are lent and paid, frequently through a variety of hands, without the intervention of a single piece of coin. 3dly. There is always a large quantity of gold and silver in the repositories of the bank, besides its own stock, which is placed there, with a view partly to its safe-keeping, and partly to the accommodation of an institution, which is itself a source of general accommodation. These deposits are of immense consequence in the operations of a bank. Though liable to be redrawn at any moment, experience proves, that the money so much oftener changes proprietors than place, and that what is drawn out is generally so speedily replaced, as to authorize the counting upon the sums deposited, as an *effective fund*, which, concurring with the stock of the bank, enables it to extend its loans, and to answer all the demands for coin, whether in consequence of those loans, or arising from the occasional return of its notes.

These different circumstances explain the manner in which the ability of a bank to circulate a greater sum than its actual capital in coin is acquired. This, however, must be gradual, and must be preceded by a firm establishment of confidence—a confidence which may

be bestowed on the most rational grounds, since the excess in question will always be bottomed on good security of one kind or another. This, every well-conducted bank carefully requires, before it will consent to advance either its money or its credit, and where there is an auxiliary capital (as will be the case in the plan hereafter submitted), which, together with the capital in coin, defines the boundary that shall not be exceeded by the engagements of the bank, the security may, consistently with all the maxims of a reasonable circumspection, be regarded as complete.

The same circumstances illustrate the truth of the position, that it is one of the properties of banks to increase the active capital of a country. This, in other words, is the sum of them: the money of one individual, while he is waiting for an opportunity to employ it, by being either deposited in the bank for safe-keeping, or invested in its stock, is in a condition to administer to the wants of others, without being put out of his own reach when occasion presents. This yields an extra profit, arising from what is paid for the use of his money by others, when he could not himself make use of it, and keeps the money itself in a state of incessant activity. In the almost infinite vicissitudes and competitions of mercantile enterprise, there never can be danger of an intermission of demand, or that the money will remain for a moment idle in the vaults of the bank. This additional employment given to money, and the faculty of a bank to lend and circulate a greater sum than the amount of its stock in coin, are, to all the purposes of trade and industry, an absolute increase of capital. Purchases and undertakings, in general, can be carried on by any given sum of bank paper or credit, as effectually as by an equal sum of gold and silver. And thus, by contributing to enlarge the mass of industrious and commercial enterprise, banks become nurseries of national wealth—a consequence as satisfactorily verified by experience, as it is clearly deducible in theory.

Secondly.—Greater facility as to the government in obtaining pecuniary aids, especially in sudden emergencies. This is another, and an undisputed advantage of public banks—one which, as already remarked, has been realized in signal instances among ourselves. The reason is obvious: the capitals of a great number of individuals are, by this operation, collected to a point, and placed under one direction. The mass formed by this union, is, in a certain sense, magnified by the credit attached to it; and while this mass is always ready, and can at once be put in motion, in aid of the government, the interest of the bank to afford that aid, independent of regard to the public safety and welfare, is a sure pledge for its disposition to go as far in its compliances as can in prudence be desired. There is, in the nature of things, as will be more particularly noticed in another place, an intimate connection of interest between the Government and the bank of a nation.

Thirdly.—The facilitating of the payment of taxes. This advantage

is produced in two ways. Those who are in a situation to have access to the bank, can have the assistance of loans, to answer, with punctuality, the public calls upon them. This accommodation has been sensibly felt in the payment of the duties heretofore laid by those who reside where establishments of this nature exist. This, however, though an extensive, is not a universal benefit. The other way in which the effect here contemplated is produced, and in which the benefit is general, is the increasing of the quantity of circulating medium, and the quickening of circulation. The manner in which the first happens, has already been traced. The last may require some illustration. When payments are to be made between different places having an intercourse of business with each other, if there happen to be no private bills at market, and there are no bank-notes which have a currency in both, the consequence is, that coin must be remitted. This is attended with trouble, delay, expense, and risk. If, on the contrary, there are bank-notes current in both places, the transmission of these by the post, or any other speedy or convenient conveyance, answers the purpose; and these again, in the alternations of demand, are frequently returned, very soon after, to the place from which they were first sent: whence the transportation and re-transportation of the metals are obviated, and a more convenient and more expeditious medium of payment is substituted. Nor is this all; the metals, instead of being suspended from their usual functions during this process of vibration from place to place, continue in activity, and administer still to the ordinary circulation, which, of course, is prevented from suffering either diminution or stagnation. These circumstances are additional causes of what, in a practical sense, or to the purposes of business, may be called greater plenty of money. And it is evident, that whatever enhances the quantity of circulating money, adds to the ease with which every industrious member of the community may acquire that portion of it of which he stands in need, and enables him the better to pay his taxes, as well as to supply his other wants. Even where the circulation of the bank paper is not general, it must still have the same effect, though in a less degree. For, whatever furnishes additional supplies to the channels of circulation in one quarter, naturally contributes to keep the streams fuller elsewhere. This last view of the subject serves both to illustrate the position that banks tend to facilitate the payment of taxes, and to exemplify their utility to business of every kind in which money is an agent.[1]

3.[2] In 1791, the year this bank was incorporated, our exports

[1] Editor's Note.—The arguments advanced by Hamilton for the establishment of a national bank were convincing; the enactment of legislation for the incorporation of such an institution came in February, 1791.

[2] Clarke, M. St. Clair, and Hall, D. A. (compilers), *Legislative and Documentary History of the Bank of the United States,* pp. 150-152. Washington, 1832.

Editor's Note.—This volume contains a detailed history of the Bank of the United States. The debates in the House to renew the charter of the First United States

amounted to about eighteen millions of dollars, and in 1804, they had increased to about seventy-six millions, gaining in thirteen years, fifty-eight millions; and our tonnage in about the same proportion.

Much of this prosperity is to be attributed to the active capital, which has excited industry and a spirit of enterprise among us; and the activity of this capital has been, in a great degree, created and promoted by the Bank of the United States. Its operations have been extensive in all our trading towns. It has aided in loans and discounts, and assisted in the collection, safe-keeping, and transmission of our revenues. It has been the depository of our treasury, and is now become incorporated with the administration of the fiscal department of our Government. The connexion which it has formed with almost every branch of business in the country, is not slight and trifling, and so easily to be severed as some seem to believe. Its operation[s] are deeply interwoven with the dealings and concerns of all the men of business in the United States.

With a capital of ten millions, it has furnished accommodations of fifteen millions a year. This has been employed principally in trade, in making prompt and cash payments to our farmers for their produce. This again has furnished to our citizens a ready and profitable market for every article of produce. These high profits of a good market have gone into the hands of the farmer, to cultivate, improve, and enrich the country. And travel through any State in the Union, and their effects may be readily seen, affording a prospect, consoling and elevating to the philanthropist and the patriot. The land is highly cultivated, good buildings, turnpike roads, bridges, and other expensive improvements indicate the wealth of our citizens, and the prosperity of the country. Money has been freely circulated; trade has been active; produce high, and our country has been improved by these unexampled advantages to a degree far beyond what the most sanguine calculations twenty years ago could have anticipated. And yet, sir, we are gravely told, that this bank has nearly ruined the country; that it is threatening our best interests with destruction! As well might gentlemen tell us, that total darkness prevails at noon day; or that the sun in his meridian splendor affords neither light nor heat to any part of this globe.

The principal portion of the trade and business of the United States has been conducted by a paper medium, metallic has scarcely been seen. The amount of this circulating medium is, say fifty millions. Now, what is proposed by denying a renewal of the United States Bank charter? That this bank shall close its concerns, and of course stop all its accommodations. This must necessarily check and change at least one-third of the circulating medium of the country. It will

Bank, from which the above selection from a speech by Representative Fisk was taken, are of distinct value to the student of the early banking history of the United States.

undeniably require $24,000,000 to be directed to one operation, and, for a time, to one point: for the capital is $10,000,000. This is to be collected to divide among the stockholders. There are $19,000,000 due to the bank; this must be collected. This will occasion a demand for this amount from other sources; it must be paid. And the $5,000,000 in the bank, makes the sum $24,000,000 which must be suddenly called in. The effect this will have upon the various interests in the country, can neither be described, nor conceived. It must inevitably give a general and heavy shock to all paper credit—this credit so much and profitably in operation must receive a severe if not a mortal wound. And what substitute have we for this, when it shall be destroyed? Silver and gold coin cannot be relied on. There is not, from the best estimate, an amount to exceed $10,000,000 specie in all our cities and trading towns, and this will be collected by this bank. The price of all stocks and every kind of produce and species of property must suffer a great depression: for a scarcity of money enhances its value, and, consequently, depresses the value of every other species of property. That this sudden, if not total change in our system, must occasion great embarrassment, produce failures, disappointments, and distress among our citizens, is certain.

To say the least of such a measure, is to term it an experiment which no well regulated State has ever dared to make, from the first institution of civilized society to the present time. Stronger governments than ours, in risking such an experiment, would ensure their overthrow and ruin. Perhaps the good fortune of the American people is a sufficient guarantee against all the disastrous consequences which any other people might experience from such a measure. But I own, sir, I dare not incur by my vote the awful responsibility of this bold and untried experiment, unless compelled by the constitution. This, in my most deliberate opinion, the constitution does not require.

But the question of constitutionality I shall not at this time discuss. If it is a question which Congress may discuss and decide, it was discussed and deliberately decided at the time this charter was granted. The decision it then received has met with the general approbation of the States and of the people. Branches have been established in a number of the States, and the bills have circulated without opposition or difficulty in all. And counterfeiters of this paper are punishable for forgery, by the statutes of the different States. For twenty years, this institution has received the countenance and patronage of the Government. In this patronage there has been no difference in the several administrations, unless that of the republican administration has been the most extensive. This bank has been employed by the Government to keep its treasure, to collect and transmit the revenue—and the Government, it will be recollected, originally owned two-fifths of the capital, which has been sold at a great advance. The United States owned $2,000,000, equal to 5,000 shares.

2,493 shares were sold in 1796-97, at an advance of 25 per cent.	$997,200
25 per cent. gain	298,600
First sale amounted to	$1,295,800
287 shares sold in 1797	$114,800
At 20 per cent. advance, gain	22,960
	$137,760
By the republican administration in 1802, 2,200 shares	888,000
At 45 per cent. advance, gain	399,600
	$1,287,600
	137,760
	1,295,800
	$2,721,160

So that the United States gained $721,000; and of this, $399,600 has been received by the administration under Mr. Jefferson. This sale was sanctioned by a vote of the House of Representatives, although it was to a foreigner, an Englishman, Mr. Baring; and our Government gained on this sale $399,600. This conduct of the Government, and of the then republican majority of the House of Representatives, did not evince any scruples about the constitutionality of the charter. If it was deemed unconstitutional and dangerous to the liberties and best interests of the people it was not for those who entertained the opinion to give it countenance and support. They ought rather to have taken measures to have checked and stopped its operations. And there is nothing in the argument that the faith of Government was pledged for twenty years, and the law, although unconstitutional, could not have been repealed: for Congress cannot pledge the faith of Government by an unconstitutional law. If Congress should establish a monarchical Government in any State or Territory, and by law guarantee it to the people for twenty years, would any one dare to contend that the faith of Government was pledged for twenty years, and this law could be repealed? Certainly not. And why? Because such a law would be unconstitutional. It would be the duty of the legislature to repeal it, because the members are sworn to support the constitution. And how will gentlemen who have been members of this House many years, and entertaining the opinion that this charter was a violation of the constitution, and voting to approbate the sale of the bank stock, and for other measures to countenance its operation, and never attempting to rid the country of this monster, reconcile their conduct with their duty? It can only be reconciled by the conclusion that they did not question the constitutionality of the charter.[1] . . .

[1] For a discussion of the Second United States Bank, see chap. ix, sections 9-12.

CHAPTER IV

COMMERCIAL DEVELOPMENT: FROM THE CLOSE OF THE REVOLUTIONARY WAR TO 1820

THE conclusion of the Revolutionary War signalized the beginning of a new era in American commerce. Normal relations having been reëstablished, America imported heavily from abroad, especially from Great Britain. The export trade, however, was seriously handicapped by the many commercial restrictions maintained by the countries of Europe. Although the United States had won her political freedom, Great Britain was still confident of being able to maintain her economic domination over the New World. This view was emphatically expressed by Lord Sheffield in his *Observations on the Commerce of the American States* (Nos. 1-2). Other observers were equally certain that the economic dependence of the United States upon Great Britain was not nearly as complete as Lord Sheffield and many other Englishmen had assumed (No. 3).

One of the outstanding problems encountered by the United States in the years following the war resulted from the many commercial restrictions enforced by each of the thirteen states. These restrictions constituted a serious interference to the normal development of our foreign relations and were eliminated only by vesting in the federal government the right to regulate commerce with foreign nations. The adoption of the federal Constitution was therefore of tremendous importance in improving our trade relations with the rest of the world.

The French Revolution and the Napoleonic Wars brought new opportunities to the infant nation. Shortly after the outbreak of the war President Washington proclaimed the neutrality of the United States. American merchantmen almost immediately began an extensive carrying trade to the ports of the belligerents. The fact that vessels flying the American flag engaged in an active trade between the French colonies in America and France was a source of great irritation to England. In an attempt to destroy this trade the British government assumed the right of confiscating provisions and foodstuffs on board neutral vessels, a policy which

the United States energetically opposed. To settle this dispute negotiations were opened. Jay's treaty, signed in November, 1794, followed (Nos. 4-5). No reference was made in the treaty to the impressment of American sailors. Moreover, Great Britain persisted in her policy of regarding provisions and foodstuffs as contraband of war, thus retaining the right of seizing supplies found on neutral vessels.

Beginning with the year 1804 Great Britain adopted a more drastic policy in her attempt to prevent France from obtaining goods through neutral channels. This policy found expression in the Orders in Council of 1804, 1806, and 1808 and in the Napoleonic Decrees of 1806 and 1807 (No. 6). The enforcement of these orders and decrees was the immediate cause for the passage of the Embargo Act (No. 7). By March, 1809, the agitation in America against this legislation became so strong that the act was repealed and the Non-Intercourse Act substituted (No. 8). The inevitable consequence of incessant annoyance was a declaration of war against Great Britain.

Despite the fact that the United States brought this conflict to a successful conclusion, Great Britain continued to restrict the activity of American vessels in their trade with the West Indies. It was felt that, if the United States were to impose similar restrictions on foreign commerce, the Navigation Acts would be modified in favor of American trade. With this in mind the United States passed the *Navigation Acts* of 1817 and 1818. It was not, however, until 1830 that Great Britain withdrew the restrictions against which the American government had so vigorously protested (No. 5). American commerce sustained heavy losses in the period 1783-1820; nevertheless, it was during these years that commercial activity received an impetus as never before (Nos. 9-15).

Lord Sheffield's Observations on the Commerce of the United States

1.[1] As a sudden revolution—an unprecedented case—the independence of America, has encouraged the wildest sallies of imagination, Systems have been preferred to experience, rash theory to successful

[1] Sheffield, John Lord, *Observations on the Commerce of the American States*, ed. 6 (enlarged), pp. 1-6. London, 1784.

Editor's Note.—Lord Sheffield (John Baker Holroyd—1735-1821) is not only remembered as a political leader, but also as the author of a number of authoritative works on commerce and agriculture. Although obviously biased, his "observations"—written in 1783 in opposition to a bill which had as its object the modification of the Navigation Acts to benefit the United States—are of value in interpreting the point of view of a large number of Englishmen at the close of the Revolutionary War.

practice, and the Navigation Act itself, the guardian of the prosperity of Britain, has been almost abandoned by the levity or ignorance of those, who have never seriously examined the spirit of the happy consequences of it. Our calmer reflections will soon discover, that so great a sacrifice is neither requisite nor expedient: truth and fact are against it; and the knowledge only and consideration of the exports and imports of the American States will afford us just principles, whereby we may ascertain the real value of their trade, foresee and judge of their true interest and probable conduct, and choose the wisest measures (the wisest are always the most simple) for securing and improving the benefits of a commercial intercourse with this now-foreign and independent nation: (for it is in the light of a foreign country that America must henceforward be viewed—it is the situation she herself has chosen by asserting her independence; and the whimsical definition of a people *sui generis*, is either a figure of rhetoric which conveys no distinct idea, or the effort of cunning, to unite at the same time the advantages of two inconsistent characters. By asserting their independence, the Americans have at once renounced the privileges as well as the duties of British subjects:—they are become foreign States; and if, in some instances, as in the loss of the carrying trade, they should feel the inconvenience of their choice, they could not, nor ought they to complain; but should they, on the other hand, be placed on the footing of the most favoured nation, they must surely applaud our liberality and friendship, without going so far as to expect that, for their emolument, we should sacrifice the navigation, and, of course, the naval power of Great Britain. By the simple expedient of permitting the acts of navigation to operate in respect to the American States as they operate in respect to the most favoured foreign nation, we shall escape the unknown mischiefs of crude and precipitate systems, we shall avoid the rashness of hasty and pernicious concessions; concessions which could never be resumed without provoking their jealousy, and perhaps not without an entire commercial breach with the American States.

In the youthful ardour for grasping the advantages of the American trade, a bill, still depending, was first introduced into parliament. Had it passed into a law, it would have affected our most essential interests in every branch of commerce, and in every part of the world; it would have deprived of their efficacy our navigation laws, and undermined the whole naval power of Britain; it would have endangered the repose of Ireland, and excited the just indignation of Russia and other countries: the West India planters would have been the only subjects of Britain who could have derived any benefit, however partial and transient, from their open intercourse directly with the American States, and indirectly through them with the rest of the world. Fortunately, some delays have intervened; and if we diligently use the opportunity of inquiry and reflection which these delays have

afforded us, the future welfare of our country may depend on this salutary pause.

Our impatience to pre-occupy the American market should, perhaps, be rather checked than encouraged. The same eagerness has been indulged by our rival nations: they have vied with each other in pouring their manufactures into America, and the country is already stocked, most probably overstocked, with European commodities. It is experience alone that can demonstrate to the French or Dutch trader the fallacy of his eager hopes, and *that* experience will operate every day in favour of the British merchant. He alone is able and willing to grant that liberal credit, which must be extorted from his competitors by the rashness of their early ventures: they will soon discover, that America has neither money nor sufficient produce to send in return, and cannot have for some time; and, not intending or being able to give credit, their funds will be exhausted, their agents will never return, and the ruin of the first creditors will serve as a lasting warning to their countrymen. The solid power of supplying the wants of America, of receiving her produce, and of waiting her convenience, belongs almost exclusively to our own merchants. If we can abstain from mischievous precipitation, we shall learn, to our great satisfaction, that the industry of Britain will encounter little competition in the American market. We shall observe with pleasure, that, among the maritime states, France, after all her efforts, will derive the smallest benefits from the commercial independence of America. She may exult in the dismemberment of the British empire; but, if we are true to ourselves, and to the wisdom of our ancestors, there is still life and vigour left to disappoint her hopes, and to control her ambition.

2.[1] Instead of exaggerating the loss suffered by the dismemberment of the empire, our thoughts may be employed to more advantage, in considering what our situation really is, and what are the greatest advantages that can be derived from it. It will be found better than we expect; nor is the independence of the American States, notwithstanding their connection with France, likely to interfere with us essentially, as has been apprehended, except as to the carrying trade, and this it is in our power to prevent. The carriage of what we used to send to America, was much less than of those articles which we brought from thence; a few tobacco ships will carry back as much of our manufactures as all the American States will consume. *We must therefore retain the carrying trade wherever we possibly can.*— But the demand for our manufactures will continually increase with the increasing population of America. Desponding politicians may derive some comfort from the prospect, that if the American States should hereafter be able to manufacture for themselves, new channels of commerce will be opened, and the inland parts of the continent will require an inexhaustible supply. British manufactures will for ages

[1] *Ibid.*, pp. 234-267.

ascend the great rivers of that continent, and by means of a most extraordinary inland navigation, will be diffused through a country more fertile, more susceptible of population, and four times more extensive than all the American States. The dereliction of such a country, by the late inglorious treaty, has deeply wounded the honour, and perhaps the constitution of Britain, and the American States might well receive with astonishment, the unexpected gift; yet the gift, however disgraceful to ourselves and unnecessary, will be vain and useless, if not mischievous to the new sovereign. The authority of the Congress can never be maintained over those distant and boundless regions, and her nominal subjects will speedily imitate and multiply the examples of independence. But it will be a long time before the Americans can manufacture for themselves. Their progress will be stopped by the high price of labour, and the more pleasing and more profitable employment of agriculture, while fresh lands can be gotten; and the degree of population necessary for manufactures cannot be expected, while a spirit of emigration, especially from the New-England provinces to the interior parts of the continent, rages full as much as it has ever done from Europe to America. If manufacturers should emigrate from Europe to America, at least nine tenths of them will become farmers; for they will not be confined to manufactures, when they can get much greater profit by farming.

No American articles are so necessary to us as our manufactures, &c. are to the Americans; and almost every article of the produce of the American States, which is brought into Europe, we may have at least as good and as cheap, if not better, elsewhere. Both as a friend, and as an enemy, America has been burthensome to Great Britain. It may be some satisfaction to think, that by her breaking off rather prematurely, Great Britain may find herself in a better situation in respect to America, than if she had fallen off when more ripe. America never furnished us with any American born sailors; although it has been asserted, that the British fleet was in great part supplied with seamen from that country. More than half the number employed by the American States during the war, were not Americans. In the southern Provinces, British and Irish sailors principally were employed before the war; in all the other Colonies, they were more than half British, except in New England, where three fourths might be natives. In the time of her greatest prosperity, the money which America raised, was trifling. She will feel the loss of 370,000£. a year, which was the expense of the British establishment there, and was drawn from this country. Pennsylvania, even with the aid of a parliamentary donation of 80,000£. sterling, was twenty years sinking 313,043£. sterling, granted for the expense of the war begun in 1755, at the rate of 18d. in the pound on the annual value of real and personal property. Pennsylvania, although she never paid much above 20,000£. yearly currency, complained greatly of her taxes.

It will not be an easy matter to bring the American States to act

as a nation; they are not to be feared as such by us. It must be a long time before they can engage, or will concur in any material expense. A Stamp act, a Tea act, or such act, that can never again occur, could alone unite them; their climate, their staples, their manners, are different; their interests opposite; and that which is beneficial to one, is destructive to the other. We might as reasonably dread the effects of combinations among the German as among the American States, and depricate the resolves of the Diet, as those of Congress. In short, every circumstance proves, that it will be extreme folly to enter into any engagements, *by which we may not wish to be bound hereafter.* It is impossible to name any material advantage the American States will, or can give us in return, more than what we of course shall have. No treaty can be made with the American States that can be binding on the whole of them. The act of Confederation does not enable Congress to form more than general treaties: at the moment of the highest authority of Congress, the power in question was withheld by the several States. No treaty that could be made would suit the different interests. *When treaties are necessary, they must be made with the States separately. Each State has reserved every power relative to imports, exports, prohibitions, duties, etc. to itself. But no treaty at present is necessary.* We trade with several very considerable nations, without commercial treaties. The novelty of the case, and the necessity of inquiry and full consideration, make it improper for us to hurry into any engagements that may possibly injure our navigation. When men talk of liberality and reciprocity in commercial matters, it is clear, either that they have no argument, or no knowledge of the subject, that they are supporting a favourite hypothesis, or that they are interested. It is not friendship or favour, but exactness and punctuality, that is looked for in commerce. Our great national object is to raise as many sailors and as much shipping as possible; so far acts of Parliament may have effect; but neither acts of Parliament nor treaties, in matters merely commercial, will have any force, farther than the interests of individuals coincide; and wherever advantage is to be gotten, the individual will pursue it.

At least four fifths of the importations from Europe into the American States, were at all times made upon credit; and undoubtedly the States are in greater want of credit at this time than at former periods. It can be had only in Great Britain. The French, who gave them credit, are all bankrupts: French merchants cannot give much credit. The Dutch in general have not trusted them to any amount; those who did have suffered; and it is not the custom of the Dutch to give credit, but on the best security. It is therefore obvious, from this and the foregoing state of imports and exports, into what channels the commerce of the American States must inevitably flow, and that nearly four fifths of their importations will be from Great Britain directly. Where articles are nearly equal, the superior credit afforded by England will always give the preference. The American

will, doubtless, attempt to persuade the British merchant to be his security with foreigners; but it is certain many foreign articles will go to America through Great Britain, as formerly, on account of the difficulty the American merchant would find in resorting to every quarter of the world to collect a cargo. The Americans send ships to be loaded with all sorts of European goods. A general cargo for the American market cannot be made up on such advantageous terms in any part of the world as in England. In our ports, all articles may be got with dispatch—a most winning circumstance in trade; but wherever they carry fish, and those articles for which England cannot be the entrepot, they will take back wine, silk, oil, &c. from Spain and Portugal, and the Mediterranean. But if we maintain the carrying trade, half the commerce of the American States, or less than half, without the expence of their government and protection, and without the extravagance of bounties, would be infinitely better for us than the monopol[y], such as it was.

Free ports at Bermuda, the Bahamas, the West Indies, &c. have been suggested, as means of assisting commerce. They are in general nests for smugglers, and detrimental to the fair trader. At the same time that they encourage the American States, they would encourage emigration from Britain and Ireland to those States. Every encouragement given to the trade, cultivation of land, or the fishery of the American States, acts as a bounty on emigration; the restraints which have fallen on their fisheries, have already had a considerable effect in favour of our Newfoundland fishery. Jamaica can raise Indian corn, live stock, &c. sufficient for her use; and if a sufficiency of Indian corn could not be procured in the other islands, it has already been stated that peas and beans may be had from our remaining colonies or this country, which would answer the purpose equally well; therefore, as the British West Indies can be supplied upon reasonable terms with every thing they possibly can stand in need of, without being materially injured for want of a market for any part of their produce, no good reason can be assigned for making any free ports. The effects of such a measure would be the opening a channel for smugglers, to the prejudice of fair trade and of the revenue, and a division of the carrying trade of this country with the American States. The consequence is obvious; the Americans will build ships, our artificers and sailors will emigrate to America, and they and their progeny be lost to this country for ever.

If the subjects of the American States should go to the British free ports to sell their lumber and some other articles, perhaps a little cheaper than they could be procured from our remaining colonies, it does not by any means follow, that they will take any British West-India produce in return; on the contrary, it is clear they will take little from British free ports but money, and they will, as they have hitherto done, go to the foreign West-India settlements with their ready money, and purchase such West-India commodities as they

want, at a much lower price than British West-India produce could be sent to any free port in North America, as has been already shewn. Particular free ports are injurious;—if general regulations cannot be made to answer the purpose intended, we should not venture to make a change. We had better give up the islands than open the trade to the Americans, or any nation; and we may almost as well open the trade, as make free ports in the West Indies. Before it is done, West-India Custom-house officers should be less corrupt. The advantage to be derived from a British free port, which cannot be got through a foreign free port in those parts, does not appear. It will be said, through free ports we should get Spanish dollars. It is answered, the latter may be got without such means.

The introduction of the produce of foreign islands into British free ports, might hurt our West-India islands, and smuggling would be greatly encouraged by them; but, above all other considerations, free ports will be dangerous to our carrying trade; they will undoubtedly be the means of dividing it with others. American, or the shipping of any nation, would carry from them our West-India produce where they pleased. They may be advantageous to individuals; but if a free port is in any case necessary or proper, it must be at Bermuda, or one of the Bahama islands, and for those articles only that it may be absolutely necessary for the British West-India islands to have from the southern American States, Indian corn and rice; and rum only should be received in return. The laws of Congress could not prevent the Americans from running to Bermuda with their provisions, etc. Free ports, however, in those parts, are absolutely unnecessary; in many respects they are extremely exceptionable; but the allowing the produce and merchandise of the American States, imported only in ships of that country or of Britain, to be stored, until a sale can be made of them at home, or in some other part of Europe, might be of great advantage to both countries. The produce and merchandise, when landed, should, if sold for consumption in the kingdom, be subject to, and pay, when taken from the warehouses, the duties and taxes which are or may be laid upon such articles; but such part as shall be re-exported to foreign markets should be subject to no burden whatever, excepting the usual store rent, and unavoidable charges at the Custom House; and regulations should be made, giving every possible facility at the Custom Houses. By this means the British merchant will have the management of the sales, and the advantages to be derived from them; and the American, without running the risque, and incurring the expence of going from one port to another, will be at all times sure of the best market to be had in Europe. The American commerce, especially for the most necessary and the most bulky articles, would, in a great measure, center in this kingdom. The merchants in America, not being able to make remittances in advance, but, on the contrary, obliged to go in great part on credit, being enabled thus to deposit their effects at the disposal of their corre-

spondents, at the highest market which can be had in Europe; and in case they are universally low on the arrival of the produce, to wait a demand and rise of them, will derive to themselves a very essential advantage; and the British merchant, being secured in his returns, will readily answer the American orders for goods, previous to the sale of the articles that have been shipped to him for payment. By adopting this plan, we should have the carrying from hence of the several articles, or great part of them, in British ships. This might in a great degree prevent the ships of the American States from going to other countries, and taking from thence produce and manufactures merely for a freight, though not so advantageous; and it would promote the taking, through Britain, such articles as the American States may want from other countries, which this country does not supply. The articles should be placed in public stores, and only certain ports should be allowed to receive them. France is not without the idea of opening ports in the manner now mentioned. The idea is suggested here for consideration, and may be worthy attention. It might be extended to goods from other countries as well as from America, to promote an increase of the trade and navigation of this country. For the accommodation of our merchants, all high-duty goods should be allowed to be warehoused, and to be taken for exportation free of duty. The distress which frequently arises from the want of ready money to satisfy the duties at the time of importation, would be effectually prevented; as likewise the various artifices made use of at present to obtain drawbacks fraudulently, by which there can be no doubt that the revenue suffers considerably, probably more than it gains by the sums retained at present for goods intended to be exported. No drawbacks should be allowed after the goods have been taken out for home consumption, and the duties once satisfied. Each delivery of goods from the warehouse should be of sufficient quantities to prevent hardships, vexatious or otherwise, by too frequent attendances.

The facts on which these observations are founded, were not by any means lightly taken up; they have been minutely and carefully enquired into, and strictly examined, especially those which are in any degree material; but there may be mistakes, although every precaution has been taken to avoid them, and they are, for this reason, publicly submitted to still farther enquiry. The observations have been thrown out as they occurred, in a hurry, and without a nice attention to method or to ornament. The purpose, however, will be answered, if they should lead men to see the necessity of maintaining the spirit of our navigation laws, which we seemed almost to have forgot, although to them we owe our consequence, our power, and almost every great national advantage. The Navigation act, the basis of our great power at sea, gave us the trade of the world: if we alter that act, by permitting any state to trade with our islands, or by suffering any state to bring into this country any produce but its own, we desert the

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Navigation act, and sacrifice the marine of England. But if the principle of the Navigation act be properly understood, and well followed, this country may still be safe and great. Ministers will find, when the country understands the question, that the principle of the Navigation act must be kept entire, and that the carrying trade must not in any degree be hazarded. They will see the precipice on which they stand; any neglect or mismanagement in this point, or desertion of national interest, to gain a few temporary votes, will inevitably bring on their downfall, even more deservedly than the miserable peace brought on that of their predecessors; and as the mischief will be more wanton, their fall will be, as it ought—more ignominious. Their conduct on this occasion ought to be the test of their abilities and good management, and must determine the degree of confidence which should be placed in them for the future. This country has not found itself in a more interesting and critical situation than it is at present. It is now to be decided, whether we are to be ruined by the independence of America or not. The peace, in comparison, was a trifling object; and, if the neglect of any one interest more than another deserves impeachment, surely it will be the neglect of this, which involves in it, not merely the greatness, but even the very existence of our country.

Extent of American Dependence Upon English Goods and Shipping Facilities

3.[1] It is explicitly declared, in the 39th page of Lord Sheffield's introduction, that the adoption of the ground proposed by him will insure to British[2] ships the carrying trade of the United States; "for (he adds) it is certain, if our navigation laws be maintained, it will not answer to the Americans to keep many ships." This, it will be admitted, is to us, if true, a very interesting position, and demands our most serious attention. It will, however, be very easy to show, that the private shipping of the United States does not depend upon British laws. The tables, which accompany the report on the American fisheries, from the department of state, clearly prove, that we are not dependent on Great-Britain for that branch of commerce. In the regulation of our coasting trade, which employs above 100,000 tons of shipping, and which will constantly increase with our population, manufactures, and use of coal, British laws can have no operation. In our commerce with the Baltic, and the North, with all the Nether-

[1] Coxe, Tench, *A View of the United States of America,* pp. 149-154. London, 1794.

Editor's Note.—Tench Coxe (1755-1824) is perhaps best known as an author of works on economic subjects, although he also had a distinguished political career. In 1786 he was sent to the Annapolis Convention; two years later he became a delegate to the Continental Congress; in 1789 he was appointed Assistant Secretary of the Treasury and in 1792 Commissioner of Revenue. Coxe was indefatigable in his efforts to encourage American manufactures. He was one of the best informed writers of his time.

[2] In the original the words British, American, etc. appear with a small initial letter.

lands, the Hanse towns, France, Spain, Portugal, through the Straits, with most parts of Africa and India, and the colonies of the European nations, except the British, their navigation act cannot affect us. It appears moreover, that our ships are so "many," as to have amounted to 360,000 tons of vessels laden in our ports, by a return which is incomplete, while those of Great-Britain and her dominions were 225,000 tons. But it is possible, that considerable deductions from the British tonnage may happen. There is little doubt, that the diminutions of our importations from their dominions, which have taken place, in regard to China merchandize, and other India goods, Italian, Russian, Dutch, and German goods, paper, nails, sheet iron, steel, shoes and boots, gunpowder, lead, coal, salt, malt liquors, loaf and brown sugars, coffee, cocoa, and spirituous liquors, by reason of our intercourse with other nations, and the great improvement of our own resources and manufactures, will be followed by further commercial acquisitions from liberal nations, by the constant introduction of new foreign manufactures, and the discovery and attainment of new internal resources. If, for example, cotton be raised and imported, and spinning mills be erected, Manchester importations will decrease: if flax and hemp be raised and imported, in greater quantities, and flax and hemp spinning mills be erected, sail-cloth, sheeting and shirting linens, checks, osnabrucks, table and towel linen, &c., will be imported more sparingly. If by these and other means, our imports from Great-Britain should be finally reduced to such a sum, as will purchase only so much rice, tobacco, and other articles, as it's people consume, those articles will not be shipped indirectly to foreign countries, through British ports, as is now the case. These indirect shipments afford British vessels more than an equal chance in the competition with our's from America to England; because the property is generally on English account, and it gives them so far the command of the carriage from England to other parts of Europe. From these circumstances, it will be perceived, that it is interesting to our private shipping, and consequently to our success in the establishment of a navy, that we continue, by prudent and salutary means, to decrease our importations from each foreign country, so as in a greater degree to equalize them with the consumption, which that country actually makes of our productions: this, however, it is conceived, ought not to be attempted, by any precipitate or coercive means; but by the establishment of our mercantile credit in other countries, by commercial enterprise, capital, and manufacturing industry.

A second cause, which renders the intercourse in the shape of exportation to Great-Britain inordinately great, is to be found in the old private debts due to that country from this. These, so far as they will be paid by money or goods, are considerably diminished. The rise of our stocks, and the sales of them to foreigners, have enabled many to lessen those debts: and British subjects will continue to find it their interest to buy into them. These are payments, which

occasion only a remittance of the interest; and the commutation of private for public debts is therefore to be desired. Part of the old debts, which remain due to the English merchants, must be received in the soil and buildings of this country. When these shall be accepted by the creditor, they will still remain immoveable: and he will find himself, or his child, transformed into an American freeholder, to his profit and that of the United States, though to the injury, and sometimes the ruin, of the unfortunate debtor. This change of the creditor's situation will not be unpleasing to a liberal mind of any country; and, if properly understood, may greatly meliorate the prospects of the family and connexions of many in Britain, who are concerned in American debts. A country, of great native strength, becoming energetic, intelligent, free, not disposed to provoke either insults or injuries, and in a situation not to submit to a wanton imposition of either, holds out as great promises of human happiness, as any, of which the foreign creditor can have been a citizen. He is sure of a kind reception, and of the protection of the laws and constitution in his person, property, and religion.

A third cause, which has produced an extraordinary intercourse in the shape of importations from Great-Britain, has been the want of credit from other nations. We now annually import from that kingdom about 900,000 dollars, in articles not of it's growth, produce, or manufacture; and though we have reduced this from about 2,200,000 dollars since the separation of the two countries, there is yet that great value expensively, because circuitously, imported. The pursuit of this accustomed track, established in the time of the old British monopoly, has been one cause of these unnatural importations: but the chief cause was *the credit* we found from England. The British merchants will probably continue to afford the greatest accommodations of this kind; but it is evident that the citizens of other countries will furnish us with credit, and sometimes in more eligible shapes. They will give us their cash articles and their coin, to be employed in ready-money trades at home and abroad, in manufactures and foreign commerce. In proof of this may be adduced the respondentia credits in India and China, the purchases into our several bank stocks, the investment of monies in our lands,[1] and in our navigation, trade, and manufactures. The medium imports from Great-Britain for several years before the revolution, appear, from European accounts, to be to the medium imports for an equal term of years antecedent to 1790, as 27 to 23, though our population has probably almost doubled; and though much larger importations than heretofore, by persons intending to remain here, have also contributed to swell the quantity in the latter term. What is to follow in this way, time, it is believed, will very quickly show.

[1] These continue in numerous and great instances: 6,500,000 acres of our new lands have been purchased by foreigners within the last two years. A.D. 1793.

Jay's Treaty

4.[1] *Treaty of Amity, Commerce and Navigation between his Britannic Majesty and the United States of America (November 19, 1794).*

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Article I

There shall be a firm, inviolable and universal peace, and a true and sincere friendship between his Britannic Majesty, his heirs and successors, and the United States of America; and between their respective countries, territories, cities, towns and people of every degree, without exception of persons or places.

Article II

His Majesty will withdraw all his troops and garrisons from all posts and places within the boundary lines assigned by the treaty of peace to the United States. This evacuation shall take place on or before the first day of June, one thousand seven hundred and ninety-six . . . : The United States in the mean time at their discretion, extending their settlements to any part within the said boundary line, except within the precincts or jurisdiction of any of the said posts. All settlers and traders, within the precincts or jurisdiction of the said posts, shall continue to enjoy, unmolested, all their property of every kind, and shall be protected therein. They shall be at full liberty to remain there, or to remove with all or any part of their effects; and it shall also be free to them to sell their lands, houses, or effects, or to retain the property thereof, at their discretion; such of them as shall continue to reside within the said boundary lines, shall not be compelled to become citizens of the United States, or to take any oath of allegiance to the government thereof; but they shall be at full liberty so to do if they think proper, and they shall make and declare their election within one year after the evacuation aforesaid. And all persons who shall continue there after the expiration of the said year, without having declared their intention of remaining subjects of his Britannic Majesty, shall be considered as having elected to become citizens of the United States.

Article III

It is agreed that it shall at all times be free to his Majesty's subjects, and to the citizens of the United States, and also to the Indians

[1] U. S. *Statutes at Large,* vol. viii, pp. 116-129.

Editor's Note.—The withdrawal of British troops from Western military posts and the payment for property belonging to the United States which had been illegally seized since the outbreak of the Napoleonic Wars were the two outstanding provisions of the Treaty of 1794 (Jay's Treaty). The treaty did not contain any reference to impressment, nor to the "Rule of 1756", which forbade in war-time trade relations not allowed in times of peace. Should food or provisions be taken Jay's treaty provided for the payment therefor and not confiscation without compensation as had been the practice previously.

dwelling on either side of the said boundary line, freely to pass and repass by land or inland navigation, into the respective territories and countries of the two parties, on the continent of America (the country within the limits of the Hudson's Bay Company only excepted) and to navigate all the lakes, rivers and waters thereof, and freely to carry on trade and commerce with each other. But it is understood, that this article does not extend to the admission of vessels of the United States into the sea-ports, harbours, bays, or creeks of his Majesty's said territories; nor into such parts of the rivers in his Majesty's said territories as are between the mouth thereof, and the highest port of entry from the sea, except in small vessels trading bona fide between Montreal and Quebec, under such regulations as shall be established to prevent the possibility of any frauds in this respect. Nor to the admission of British vessels from the sea into the rivers of the United States, beyond the highest ports of entry for foreign vessels from the sea. The river Mississippi shall, however, according to the treaty of peace, be entirely open to both parties; and it is further agreed, that all the ports and places on its eastern side, to whichsoever of the parties belonging, may freely be resorted to and used by both parties, in as ample a manner as any of the Atlantic ports or places of the United States, or any of the ports or places of his Majesty in Great-Britain.

All goods and merchandize whose importation into his Majesty's said territories in America, shall not be entirely prohibited, may freely, for the purposes of commerce, be carried into the same in the manner aforesaid, by the citizens of the United States, and such goods and merchandize shall be subject to no higher or other duties, than would be payable by his Majesty's subjects on the importation of the same from Europe into the said territories. And in like manner, all goods and merchandize whose importation into the United States shall not be wholly prohibited, may freely, for the purposes of commerce, be carried into the same, in the manner aforesaid, by his Majesty's subjects, and such goods and merchandize shall be subject to no higher or other duties, than would be payable by the citizens of the United States on the importation of the same in American vessels into the Atlantic ports of the said states. And all goods not prohibited to be exported from the said territories respectively, may in like manner be carried out of the same by the two parties respectively, paying duty as aforesaid.

No duty of entry shall ever be levied by either party on peltries brought by land, or inland navigation into the said territories respectively, nor shall the Indians passing or repassing with their own proper goods and effects of whatever nature, pay for the same any impost or duty whatever. But goods in bales, or other large packages, unusual among Indians, shall not be considered as goods belonging bona fide to Indians.

No higher or other tolls or rates of ferriage than what are or shall

be payable by natives, shall be demanded on either side; and no duties shall be payable on any goods which shall merely be carried over any of the portages or carrying-places on either side, for the purpose of being immediately re-imbarked and carried to some other place or places. But as by this stipulation it is only meant to secure to each party a free passage across the portages on both sides: it is agreed, that this exemption from duty shall extend only to such goods as are carried in the usual and direct road across the portage, and are not attempted to be in any manner sold or exchanged during their passage across the same, and proper regulations may be established to prevent the possibility of any frauds in this respect.

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Article VI

Whereas it is alleged by divers British merchants and others his Majesty's subjects, that debts, to a considerable amount, which were bona fide contracted before the peace, still remain owing to them by citizens or inhabitants of the United States, and that by the operation of various lawful impediments since the peace, not only the full recovery of the said debts has been delayed, but also the value and security thereof have been, in several instances, impaired and lessened, so that by the ordinary course of judicial proceedings, the British creditors cannot now obtain, and actually have and receive full and adequate compensation for the losses and damages which they have thereby sustained. It is agreed, that in all such cases, where full compensation for such losses and damages cannot, for whatever reason, be actually obtained, had and received by the said creditors in the ordinary course of justice, the United States will make full and complete compensation for the same to the said creditors: But it is distinctly understood, that this provision is to extend to such losses only as have been occasioned by the lawful impediments aforesaid, and is not to extend to losses occasioned by such insolvency of the debtors, or other causes as would equally have operated to produce such loss, if the said impediments had not existed; nor to such losses or damages as have been occasioned by the manifest delay or negligence, or wilful omission of the claimant.

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Article VII

Whereas complaints have been made by divers merchants and others, citizens of the United States, that during the course of the war in which his Majesty is now engaged, they have sustained considerable losses and damage, by reason of irregular or illegal captures or condemnations of their vessels and other property, under colour of authority or commissions from his Majesty, and that from various circumstances belonging to the said cases, adequate compensation for

the losses and damages so sustained cannot now be actually obtained, had and received by the ordinary course of judicial proceedings; it is agreed, that in all such cases, where adequate compensation cannot, for whatever reason, be now actually obtained, had and received by the said merchants and others, in the ordinary course of justice, full and complete compensation for the same will be made by the British government to the said complainants. But it is distinctly understood, that this provision is not to extend to such losses or damages as have been occasioned by the manifest delay or negligence, or wilful omission of the claimant.

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Article X

Neither the debts due from individuals of the one nation to individuals of the other, nor shares, nor monies which they may have in the public funds, or in the public or private banks, shall ever in any event of war or national differences be sequestered or confiscated, it being unjust and impolitic that debts and engagements contracted and made by individuals, having confidence in each other and in their respective governments, should ever be destroyed or impaired by national authority on account of national differences and discontents.

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Article XIII

His Majesty consents that the vessels belonging to the citizens of the United States of America, shall be admitted and hospitably received, in all the sea-ports and harbours of the British territories in the East-Indies. And that the citizens of the said United States, may freely carry on a trade between the said territories and the said United States, in all articles of which the importation or exportation respectively, to or from the said territories, shall not be entirely prohibited. Provided only, that it shall not be lawful for them in any time of war between the British government and any other power or state whatever, to export from the said territories, without the special permission of the British government there, any military stores, or naval stores, or rice. The citizens of the United States shall pay for their vessels when admitted into the said ports no other or higher tonnage-duty than shall be payable on British vessels when admitted into the ports of the United States. And they shall pay no other or higher duties or charges, on the importation or exportation of the cargoes of the said vessels, than shall be payable on the same articles when imported or exported in British vessels. But it is expressly agreed, that the vessels of the United States shall not carry any of the articles exported by them from the said British territories, to any port or place, except to some port or place in America, where the same shall be unladen, and such regulations shall be adopted by both

parties, as shall from time to time be found necessary to enforce the due and faithful observance of this stipulation. It is also understood that the permission granted by this article, is not to extend to allow the vessels of the United States to carry on any part of the coasting-trade of the said British territories; but vessels going with their original cargoes, or part thereof, from one port of discharge to another, are not to be considered as carrying on the coasting-trade. Neither is this article to be construed to allow the citizens of the said states to settle or reside within the said territories, or to go into the interior parts thereof, without the permission of the British government established there; and if any transgression should be attempted against the regulations of the British government in this respect, the observance of the same shall and may be enforced against the citizens of America in the same manner as against British subjects or others transgressing the same rule. And the citizens of the United States, whenever they arrive in any port or harbour in the said territories, or if they should be permitted in manner aforesaid, to go to any other place therein, shall always be subject to the laws, government, and jurisdiction of what nature established in such harbour, port or place, according as the same may be. The citizens of the United States may also touch for refreshments at the island of St. Helena, but subject in all respects to such regulations as the British government may from time to time establish there.

Article XIV

There shall be between all the dominions of his Majesty in Europe and the territories of the United States, a reciprocal and perfect liberty of commerce and navigation. The people and inhabitants of the two countries respectively, shall have liberty freely and securely, and without hindrance and molestation, to come with their ships and cargoes to the lands, countries, cities, ports, places and rivers, within the dominions and territories aforesaid, to enter into the same, to resort there, and to remain and reside there, without any limitation of time. Also to hire and possess houses and ware-houses for the purposes of their commerce, and generally the merchants and traders on each side, shall enjoy the most complete protection and security for their commerce; but subject always as to what respects this article to the laws and statutes of the two countries respectively.

Article XV

It is agreed that no other or higher duties shall be paid by the ships or merchandize of the one party in the ports of the other, than such as are paid by the like vessels or merchandize of all other nations. Nor shall any other or higher duty be imposed in one country on the importation of any articles the growth, produce or manufacture of the other, than are or shall be payable on the importation of the like

articles being of the growth, produce, or manufacture of any other foreign country. Nor shall any prohibition be imposed on the exportation or importation of any articles to or from the territories of the two parties respectively, which shall not equally extend to all other nations.

But the British government reserves to itself the right of imposing on American vessels entering into the British ports in Europe, a tonnage duty equal to that which shall be payable by British vessels in the ports of America: And also such duty as may be adequate to countervail the difference of duty now payable on the importation of European and Asiatic goods, when imported into the United States in British or in American vessels.

The two parties agree to treat for the more exact equalization of the duties on the respective navigation of their subjects and people, in such manner as may be most beneficial to the two countries. The arrangements for this purpose shall be made at the same time, with those mentioned at the conclusion of the twelfth article of this treaty, and are to be considered as a part thereof. In the interval it is agreed, that the United States will not impose any new or additional tonnage duties on British vessels, nor increase the now-subsisting difference between the duties payable on the importation of any articles in British or in American vessels.

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Trade With the West Indies Following the Revolutionary War

5.[1] In 1794, Mr. Jay negotiated a treaty with a clause favorable to our West India commerce, but it was rejected by our government on the ground that it contained another clause excluding the carriage of cotton, sugar, &c., in our ships to any part of the world. In 1802, the British proposed a mutual abolition of the discriminating and countervailing duties of the two countries, and a committee of Congress reported favorably, but from the remonstrances of the merchant classes nothing was done. In 1815, the Commercial Convention between the two powers equalized the tonnage duties with the British European powers, but left those with the American colonies in the hands of the British government. That government soon excluded the Americans entirely from the West India trade, much embarrassing

[1] De Bow, J. D. B., *The Industrial Resources, Etc., of the Southern and Western States,* vol. iii, p. 382. New Orleans, 1853.

Editor's Note.—J. D. B. De Bow (1820-1867) was a journalist and editor of note. In 1846 he established in New Orleans *De Bow's Commercial Review,* which was widely read. De Bow at one time was Professor of Political Economy and Commercial Statistics in the University of Louisiana, and for two years (beginning in 1853) Superintendent of the Census. Most of his early writings indicate that De Bow favored a system of slave labor for the South, although following the war his viewpoint changed. He was an ardent supporter of the Confederacy. In addition to his work as editor he wrote and compiled many volumes on economic subjects. While at times partisan in his point of view, his work throughout is reliable.

our navigation interest, and rendered greatly more prosperous that of Great Britain. The President of the United States referred to the subject in his annual message. By paying a light duty or removing all duty from certain articles of United States produce when imported from British colonies, and a very heavy duty when imported direct, and by removing duties upon importations in the colonies, the British government secured every possible advantage, since foreign ships were not admitted to bring or carry produce to the colonies.

The Americans, in retaliation, first laid a duty on British vessels from the West Indies, and then excluded them in 1818. The complaint of the West Indies, which followed, produced an act of parliament in 1822, opening certain of the ports to the vessels of such countries as allowed reciprocal advantages. Congress immediately opened a direct trade but refused to remove the discriminating tonnage duty without proof that American and British vessels were received there on equal footing. To this the British refused, imposing countervailing duties at once on our vessels.

In 1825, the British opened the trade of their colonies to all foreign nations, on the condition that the British commerce and navigation should be put on a footing with the most favored nations, by those nations that had no colonies. The United States were unwilling to grant such favor, and the ports were immediately closed against us, and our acts of exclusion were revived. In 1830, an act was passed by Congress in regard to the West India and British colonial trade, which on the interpretation given to it by the American Minister and the President, was highly favorable to British navigation. By this agreement, American vessels could carry our produce to the islands on the same terms with the British and bring back return cargoes. They were not, however, allowed to carry foreign merchandise. The English, by an act of policy, admitted in their North American colonies American produce at merely nominal duties, and suffered them to be exported thence to the West Indies by British vessels at a much lower duty than they could be received there direct from the United States. The practical effect of this was to throw the whole trade into this channel, and vastly augment the British tonnage in comparison with our own. The act, however, gave us the island trade upon perhaps the very best terms we could have expected. The English, also, had the advantage of what is called the circuitous trade, viz.: to bring a cargo to the United States; to carry one to their own colonies, and to take in at the colonies a return cargo home. This was a clear advantage over us.

Between 1795 and 1804, our exports to British West Indies varied from two to nearly ten millions, being an average of five and a half millions; the imports varied from three to seven millions, being an average of five millions. From 1821 to 1833, the tables give no very reliable data, as the ports were sometimes opened and sometimes closed, and our trade necessarily took other channels. In none of

these years did the import or export much exceed two millions of dollars.

The Napoleonic Wars: Violations of American Neutrality

6.[1] The conduct of France and England, in committing depredations on the commerce of the United States, had now begun to produce a great deal of irritation. Complaints against England, particularly, were loud and clamorous. In 1804, the president, in his message to congress, had congratulated them, that annoyances to trade had ceased in Europe, though they still existed in the American seas. In December, 1805, however, he announced that the aspect of foreign relations was totally changed. He represented the coasts as infested by foreign privateers, who made a practice of burning those captures to which they thought their claim questionable; and by public vessels which pryed into every creek and harbour. He spoke of new principles of commerce adopted, by which belligerents take to themselves the right of trading with the hostile country, which they deny to neutrals. He concluded by expressing a doubt, whether there was need of increasing the army; but the militia, he recommended, should be put in a state of defence.

These warlike intimations were occasioned by the decrees of the British Admiralty, which had the effect of prohibitory laws upon American commerce, inasmuch as they declared such vessels as were engaged in conveying West India produce from the United States to Europe, legal prizes. The Americans having in their hands nearly the whole carrying trade of the world, during Napoleon's wars, could not but feel these decrees as levelled particularly at themselves.

As soon, therefore, as they were known, they excited the greatest indignation in the country. Meetings were held in each commercial city, petitions were forwarded to congress, and the republicans clamoured loudly for retaliation; so that the president did but obey the public voice in making this vigorous and almost menacing address. Not content with it, he followed it up by a message of the same import, in the January following.

The federalists objected that France and Spain committed equal encroachments, without exciting the president's ire in any such proportion. But in this they exaggerated, since the perseverance of England in impressing American seamen, and searching American ships for deserters, and that even upon our own coasts, produced daily causes of grievance far more numerous and irritating than the de-

[1] Frost, John, *History of the United States of North America,* pp. 295-298. London, 1838.

Editor's Note.—John Frost (1800-1859) published scores of compilations on a great variety of subjects. Many of his contributions are of significance to the student of economic history. Among his better known works the following might be included: *History of the World* (3 vols.); *Pictorial History of the United States* (2 vols.); and *Military History of the United States.*

crees of Napoleon. In the spring, the British ship Leander, then on a cruise off New York, practised the most rigid search and annoyances towards the vessels from that port. On one occasion a shot from it killed an American sailor of the name of Pearce. No sooner did a report of this reach the United States government, than a proclamation appeared, mentioning the murder, forbidding any communication between the shore and the ship, and in fact ordering it off the coast. This was followed by a more serious legislative act, against any further importation of British manufactures, the restriction to date from the ensuing November.

Meantime, in May, 1806, the British orders in council were passed, declaring several European ports under control of the French, to be in a state of blockade, and of course authorising the capture of American vessels bound for them.

In the month of June, 1807, an event occurred of an extremely irritating character. The British man-of-war Leopard, coming up with the American frigate Chesapeake, near the coast of the United States, fired into her, killed three of her men, and wounded eighteen more. The Chesapeake being a vessel of inferior force, and unprepared for action, struck her colours. She was then boarded by the British, her crew mustered, and four of them carried off under pretence that they were British deserters. They were subsequently tried at Halifax, and one of them hanged, by way of establishing the rightfulness of the impressment. The other three were proved to be Americans, who had been impressed by the British, and had escaped from their service.

The intelligence of this outrage was received with a burst of indignation throughout the country. Meetings of the citizens were very generally held, and, forgetting party distinctions, all united in resolutions to support the government in any measures of retaliation or redress which might be adopted. The president issued a proclamation, forbidding British ships of war the ports and harbours of the United States, and instructed the American ministers at the court of St. James's to demand satisfaction for the insult. He also summoned the congress to meet, and take the subject into consideration.

The act of the naval officer was promptly disavowed by the British government, who also forbade the right of search, which they claimed, to be extended to ships of war; but as no adequate reparation was offered, this outrage remained unforgiven; and contributed to keep alive the hostile feeling already excited by the aggressions of the British on our commerce.

By this Berlin decree of 1806, Napoleon had forbidden the introduction of any English goods to the continent of Europe, even in neutral vessels, and shut the harbours of France against any vessel that should touch at an English port. The English, in retaliation, first prohibited the trade of neutrals from port to port, belonging to their enemy; and afterwards declared the whole coast of Europe in a

state of blockade, prohibiting neutrals altogether from trade with the continent.

Napoleon, on learning that this measure had been adopted, thundered forth his famous Milan decree, confiscating not only the vessels that should touch at a British port, but such as should submit to be searched by the English. This was carrying hostilities to an extreme on both sides. The great powers of the land and sea, unable to measure their strength, since each was predominant on its own element, came to vent their blows upon America.

It was in vain that the government of the United States expostulated with them. To England it denied having submitted to the decrees of the French ruler; to the latter it represented the indefeasible rights of neutrals. 'Join with me in bringing England to reason,' was the reply of Napoleon, who was blind to all objects and reasons, but that of humbling his arch enemy. America was, in consequence, left to choose which of the belligerents she would take for an enemy, since both at once might prove too powerful for her, and neutrality, persevered in, only exposed her vessels to capture without retaliation—to the disadvantages, in fact, without the advantages of war.

The American ships being so much exposed to capture, congress, in December, 1807, decreed an embargo, or prohibition to American vessels to leave their ports, a measure which operated far more to the disadvantage of England and of American merchants, than of France. Mr. Jefferson, in his correspondence, acknowledges this to have been a measure preparatory to war, allowing the merchants to recall home their ships and sailors, and the country to put itself in a posture of defence. The embargo caused much distress, and many murmurs especially in the New England states; but the edict was rigidly enforced by the government.

The Embargo Act

7.[1] *An Act laying an embargo on all ships and vessels in the ports and harbors of the United States.* (*December 22, 1807.*)

Be it enacted, &c., That an embargo be, and hereby is, laid on all ships and vessels in the ports and places within the limits or jurisdiction of the United States, cleared or not cleared, bound to any foreign port or place; and that no clearance be furnished to any ship or vessel bound to such foreign port or place, except vessels under the immediate direction of the President of the United States; and that the President be authorized to give such instructions to the officers of the revenue, and of the Navy and revenue cutters of the United States, as shall appear best adapted for carrying the same into full effect: *Provided*, That nothing herein contained shall be construed to prevent the departure of any foreign ship or vessel, either

[1] *Annals* of Congress, 10 Cong., 1 Sess., Appendix, pp. 2814-2815.

in ballast, or with the goods, wares, and merchandise, on board such foreign ship or vessel, when notified of this act.

Sec. 2. *And be it further enacted*, That, during the continuance of this act, no registered, or sea-letter vessel, having on board goods, wares, and merchandise, shall be allowed to depart from one port of the United States to any other within the same, unless the master, owner, consignee, or factor of such vessel shall first give bond, with one or more sureties, to the collector of the district from which she is bound to depart, in a sum of double the value of the vessel and cargo, that the said goods, wares, or merchandise, shall be relanded in some port of the United States, dangers of the sea excepted; which bond, and also a certificate from the collector where the same may be relanded, shall by the collector, respectively, be transmitted to the Secretary of the Treasury. All armed vessels possessing public commissions from any foreign Power, are not to be considered as liable to the embargo laid by this act.

8.[1] In March, 1809, the embargo law was repealed, and an act passed prohibiting all intercourse between this country and both France and Great Britain. A provision was inserted in this non-intercourse law, that if either of the belligerent nations should revoke her hostile edicts, the law should cease to be in force with respect to that nation.

The repeal of the embargo, and the substitution of a less obnoxious act, offered a fit and favourable pretext for renewing negotiations. Mr. Erskine was accordingly sent out by the British government, to treat, and considering the suspension of the non-intercourse a fair equivalent for that of the orders in council, he stipulated that the orders should cease to be in force at a certain epoch. The president accordingly suspended the non-intercourse. But tidings no sooner reached England of the act of Mr. Erskine, than he was disavowed. The orders in council were suspended only so far as not to endanger those vessels which had sailed from America on the faith of Mr. Erskine's declaration. The president, in consequence, declared the non-intercourse act still in force, and the silent war of prohibitory edicts continued on its old footing.

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The non-intercourse act expiring in 1810, the Americans again summoned the two powers to remove their restrictions. This was asked with the manifest purpose of declaring war if the restrictions were not removed. Napoleon replied by an amicable advance, intimating through his minister that his decrees should be suspended. It was understood by him, of course, that America should no longer submit to the orders in council if unrepealed.

To the English ministry an appeal was now made to follow the example of France. Unfortunately for them, they hesitated, chicaned as to the supposed insincerity of the French declaration, or the

[1] Frost, John, *History of the United States of North America*, pp. 299-302. London, 1838. See note p. 112.

informality of its announcement, and persisted in enforcing the orders in council. Mr. Pinkney, the American envoy in London, disgusted at this shuffling behaviour of the British government, demanded his audience of leave.

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In the spring of 1811, Mr. Foster was sent out plenipotentiary from England, to make another attempt at negotiation. But, as he had no power for stipulating the repeal of the orders in council, his mission was illusive; it was merely productive of argument and diplomatic pleading between him and Mr. Monroe; and he returned without having effected anything.

In November congress assembled, and the president addressed it fully respecting the points and consequences of the still widening difference. It was hoped, he said, at the close of the last session, that the confirmation of the extinction of the French decrees would have induced the government of Great Britain to repeal its orders in council: on the contrary, however, they had been put into more vigorous execution; and fresh outrages had been committed on the American coasts.

Congress, convinced of the necessity of preparing in earnest for war, voted an increase of the regular army of 35,000 men; augmented the navy, and empowered the president to accept of the services of volunteers, call out the militia, as occasion might require, and borrow eleven millions of dollars.

Extent of American Commerce—1791-1820

9.[1] Some few years since, a theory prevailed in this country that the United States would become a more prosperous and happy nation, if they would forego, altogether and for ever, all *foreign* commerce; and, as a practical commentary upon this text, the general government, at that time wielded by Mr. Jefferson, and at his special recommendation, laid an *embargo* on all the American trade with other countries, in the month of December, 1807; and continued it with various regulations and enforcements, affecting internal commerce also, until the spring of 1809, a period of eighteen months. These "*restrictive energies*" (as they were vauntingly called by Mr. Jefferson) not only annihilated the foreign commerce, but also very materially crippled the coasting trade of the United States. The distress, misery, and ruin, produced by this great agricultural scheme, not merely to the merchants, but to the farmers also (whose interests it professed to subserve, but whose property it destroyed by taking away the markets for their produce), was so general, so deep, so intolerable, as to prove the entire fallacy of the theory; and the American people now appear universally to concur in the sentiment publicly pronounced

[1] Bristed, John, *America and Her Resources,* pp. 37-39. London, 1818. See note p. 64.

by one of the ablest and most efficient *practical* statesmen, who now serve as ornaments and bulwarks to the commonwealth; namely, that "commerce protected by a navy, and a navy nourished by commerce," is the policy best calculated to render the United States a prosperous and powerful empire.

The aggregate commerce of the world, doubtless, is increased in consequence of the universal peace established in the year 1815; but, as certainly, the respective trade of the United States and Britain has been diminished by that event. Britain has lost her war monopoly, and America has ceased to be carrier for the world. They are each reduced to the level of peace competition; and must now contend in foreign markets with the skill and ingenuity of France and Italy, the patient industry and perseverance of the United Netherlands, the rival labours of Denmark, Sweden, Russia, and the commercial parts of Germany, to which add the efforts of Spain and Portugal. Hence have arisen, during the last three years, both in the United States and in the British Isles, very general and very grievous distress, bankruptcy, and ruin, among their merchants, manufacturers, and farmers. In Britain the pressure has been more severe, on account of the enormous public expenditure, the confined territory, and crowded population of her home dominions, which allow no outlet for her people; who must, therefore, if not directed by their government, and aided to settle in the North American colonies or the Cape of Good Hope, or New Holland, swarm out hither, to swell the rapid tide of our western emigration.

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In the United States the pressure has been less severe than in Britain, although the bankruptcies among our merchants and manufacturers have been sufficiently numerous and distressing; and the farmers also have suffered greatly for want of a market for their produce; nevertheless, the moderate public expenditure, the comparatively scanty population, and the immense outlet for enterprising industry, in the new lands and virgin soil of the Western Country, prevent the necessity of any one, who possesses health and industry, suffering from absolute want of food, clothing, and lodging. The foreign trade of this country is, indeed, at present much less than it was previous to the embargo system; but such is the activity, skill, and enterprise of the American people, so well built, well navigated, and speedy are their ships, and so abundant the soil in valuable staples, that she must always average her full share of external commerce; and her home trade is continually increasing, by the improvement of her internal navigation, the variety of her products, and the rapid growth of her population, wealth, and intercourse. The wages of labour here average more than double their rate in England, and quadruple that in France; and land is plentiful, cheap, and fertile; so that those who are straitened and embarrassed in the large cities, have only to fall back into the country, and become industrious yeo-

men, and they readily provide ample sustenance for themselves, and lay a broad and permanent foundation of independence for their families.

The Export Trade of the United States.

10.[1] We shall begin with the exports—those consist of articles of the growth, produce, and manufacture of the United States, and of those which are of foreign growth and produce. Provision was made at the Treasury, at an early period of the present government, to ascertain the quantity and value of all the exports of the country; but in the general accounts no discrimination was made between the value of domestic or foreign articles, until 1802. In order to ascertain the value of the exports, directions are given, from the Treasury department, to the several collectors of the customs, to add, in their quarterly returns of duties the quantity of the various articles exported, and also their prices at the places of exportation. The quantity of the articles exported is furnished the collectors, by the exporters, and may sometimes fall short, and sometimes exceed the real quantity. At the Treasury, an average is made of the prices returned by the collectors, from the principal ports, and the value of the articles exported is calculated from the average price thus ascertained.

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The whole value of exports in each year, from 1790 [2] *to 1814, and the value of those of domestic and foreign origin, since 1803, was as follows:*

To Sept. 30.	Total value of exports. Dolls.	Value of exports of domestic origin. Dolls.	Value of exports of foreign origin. Dolls.
1791.....	19,012,041		
1792.....	20,753,098		
1793.....	26,109,572		
1794.....	33,026,233		
1795.....	47,989,472		
1796.....	67,064,097		
1797.....	56,850,206		
1798.....	61,527,097		
1799.....	78,665,522		

[1] Pitkin, Timothy, *A Statistical View of the Commerce of the United States of America*, pp. 35-37. Hartford, 1816.

Editor's Note.—Timothy Pitkin was born in Connecticut in 1766. He distinguished himself as a lawyer, later becoming a politician, serving in Congress from December, 1805, to March, 1819. In addition to his *Statistical View of the Commerce of the United States of America* he wrote a *Political and Civil History of the United States of America from the Year 1763 to the Close of Washington's Administration* (2 vols.). His work is a valuable contribution to American economic history—although not always unbiased.

[2] No annual return of exports had been made at the Treasury, prior to October, 1790.

To Sept. 30.	Total value of exports. Dolls.	Value of exports of domestic origin. Dolls.	Value of exports of foreign origin. Dolls.
1800	70,971,780		
1801	94,115,925		
1802	72,483,160		
1803	55,800,033	– 42,205,961	– 13,594,072
1804	77,699,074	– 41,467,477	– 36,231,597
1805	95,566,021	– 42,387,002	– 53,179,019
1806	101,536,963	– 41,253,727	– 60,283,236
1807	108,343,150	– 48,699,592	– 59,643,558
1808	22,430,960	– 9,433,546	– 12,997,414
1809	52,203,283	– 31,405,702	– 20,797,531
1810	66,757,970	– 42,366,675	– 24,391,295
1811	61,316,833	– 45,294,043	– 16,022,790
1812	38,527,236	– 30,032,109	– 8,495,127
1813	27,855,997	– 25,008,152	– 2,847,845
1814	6,927,441	– 6,782,272	– 145,169

11.[1] The following statement exhibits the value of merchandize, domestic and foreign, exported from the United States, to each quarter of the world, from 1801 to 1812:

	EUROPE		ASIA	
Years.	Domestic. Dolls.	Foreign. Dolls.	Domestic. Dolls.	Foreign. Dolls.
1801	27,569,699	31,380,558	371,737	1,136,517
1802	19,904,389	23,575,108	547,386	820,423
1803	25,939,111	8,561,834	292,593	149,600
1804	23,094,946	27,468,725	546,278	830,223
1805	23,640,776	36,341,320	612,683	2,156,229
1806	24,384,020	40,267,711	514,621	1,968,860
1807	31,012,947	38,882,633	497,769	1,598,445
1808	5,185,720	7,202,232	26,649	267,542
1809	17,838,502	13,072,045	703,900	1,218,228
1810	27,202,534	17,786,614	377,795	406,646
1811	29,552,442	8,727,011	581,815	812,950
1812	20,626,488	5,644,433	308,510	588,299

	AFRICA		W. INDIES, AMERICAN CONTINENT, &c.	
Years.	Domestic. Dolls.	Foreign. Dolls.	Domestic. Dolls.	Foreign. Dolls.
1801	934,331	756,445	17,482,025	13,369,201
1802	747,544	411,855	14,982,854	10,967,585
1803	636,106	148,004	15,338,151	4,734,634
1804	1,264,737	681,499	16,561,516	7,251,150

[1] *Ibid.*, pp. 241-242.

	AFRICA		W. INDIES, AMERICAN CONTINENT, &C.	
Years.	Domestic. Dolls.	Foreign. Dolls.	Domestic. Dolls.	Foreign. Dolls.
1805	1,359,518	1,726,987	16,774,025	12,954,483
1806	1,371,475	901,916	14,983,611	17,144,759
1807	1,296,375	1,627,177	15,892,501	17,535,303
1808	278,544	218,950	3,939,633	5,308,690
1809	3,132,687	1,472,819	9,732,613	5,034,439
1810	2,549,744	722,777	12,236,602	5,475,258
1811	1,804,998	622,445	13,354,788	5,860,384
1812	1,235,457	197,587	7,861,655	2,064,808

It will be seen from this statement, taken from the custom-house books, that, in the most prosperous period of our commerce, when our exports amounted annually to more than one hundred millions of dollars, we exported to Europe, domestic produce of the value of more than twenty-six millions of dollars, and of foreign produce, more than thirty-eight millions of dollars; to Asia, domestic produce of the value of about five hundred and forty thousand dollars, and foreign produce about one million and nine hundred thousand dollars; to Africa, domestic produce of the value of about one million three hundred thousand dollars, and foreign produce, about one million four hundred thousand dollars; and to the West-Indies and American continent, domestic produce, about fifteen million eight hundred and eighty thousand dollars, and foreign produce, about fifteen million eight hundred and seventy thousand dollars. The average amount of exports of domestic produce during the years, 1805, 1806, and 1807, was $44,863,198 and of foreign produce, $57,701,937. Of the whole value of domestic produce, exported during this period, about six tenths went to Europe, about four elevenths to the West-Indies and American continent, and less than one twentieth to Asia and Africa.

The Import Trade of the United States

12.[1] Having . . . given an account of the exports of the United States, we shall now, according to the plan proposed, present a view of the imports, together with an account of our trade with the different parts of the world, and its increase since the establishment of the present government. We would here remark, that no returns are made to the treasury department, of the *value* of the various articles imported, by the collectors of the customs, except those, which pay duties ad valorem; the value of which, at the place of importation, is ascertained by law as follows, viz.—"by adding twenty per cent. to the actual cost thereof, if imported from the Cape of Good Hope, or from any place beyond the same, and ten per cent. on the actual cost

[1] *Ibid.*, pp. 151-152.

thereof, if imported from any other place or country, including all charges, commissions, outside packages, and insurance only excepted."

The goods or merchandize, thus paying ad valorem duties, embrace, as has been heretofore noticed, with few exceptions, all the woollen, cotton, linen, silk, metal, earthen, and paper manufactures imported. The *value* of these goods, ascertained in the manner before stated, and not the *quantity* is returned to the treasury department. Of all the other various articles imported, the *quantity* and not the *value* is returned to the treasury by the collectors. The treasury books, therefore, do not shew the value of the imports, as they do that of the exports of the United States. This can only be ascertained by a long and tedious calculation from the prices of the various articles (except those paying ad valorem duties) at the places of importation. To do this, with accuracy, for each year, from the commencement of the government, would require more time and labour than any one would be willing to bestow on so dry a subject. At different times, however, since the establishment of the government, at the request of the national legislature, official returns have been made to Congress, of the value of our imports for short periods. From these returns and the documents accompanying them, and from other calculations, we shall be able, we trust, to present a satisfactory view of the value of our imports and trade with different parts of the world, for the greatest part of the time from the commencement of the government. . . .[1]

13.[2] During the session of Congress in the winter of 1806, the Secretary of the Treasury furnished the house of representatives with several valuable statements and documents, relative to the trade of the United States with different parts of the world, in the years 1802, 1803, and 1804.

These statements were called for by the house, while various propositions were under their consideration, as to a total, or partial non-intercourse with Great-Britain and her dependencies, for the purpose of ascertaining the amount of our trade with that kingdom, in comparison with the other parts of the world, and to enable the house to see to what extent our commerce and revenue might be affected, by a non-intercourse with the British dominions. From these statements, the annual value of our imports from all parts of the world, on an average of the years 1802, 1803, and 1804, amounted to $75,316,937, and the average value of our exports, for the same period, was $68,461,000. The value of the imports was calculated upon the same principles as the value of goods paying the ad valorem duties, that is to say, by adding from ten to twenty per cent. to the prime cost and

[1] Editor's Note.—The total value (specie value) of merchandise imported in 1800 has been calculated at $91,252,768; in 1810 at $85,400,000 and in 1820 at $74,450,000. (Department of Commerce: *Statistical Record of the Progress of the United States, 1800-1920,* p. 757, edited by Edward Whitney. Government Printing Office, 1920.)

[2] *Ibid.,* pp. 154-155.

charges at the places from which the articles were imported; the value of the exports was taken from the custom-house books.

The value of the principal articles imported, was estimated as follows:—

	Dolls.
Merchandize paying 12½ per cent. ad valorem,	30,732,069
do. do. 15 do.	8,303,770
do. do. 20 do.	453,751
Nails and spikes	479,041
Lead and manufactures of lead	227,002
Steel	147,957
Beer, ale and porter	76,020
Cheese	77,150
Boots and shoes	101,300
Coal	36,407
Salt	771,996
Rum	3,881,089
Geneva	675,430
Brandy	2,077,601
Wines	2,962,039
Teas	2,360,507
Coffee	8,372,712
Sugar	7,794,254
Molasses	1,930,592
Cotton	804,125
Pepper	633,041
Indigo	436,941
Cocoa	310,773
Pimento	71,927
Hemp	919,443
All other articles	680,000
	$75,316,937

Growth of the Merchant Marine

14.[1] The first complete return of the registered tonnage is that for the year 1790, when it amounted to 346,000 tons. Those returns are generally liable to the same objection as those for the coasting tonnage. The amount of registered tonnage for the year 1828 was stated at 812,000 tons, when, in reality, according to the correction since made at the treasury, it was but 656,000 tons; and there was an actual decrease of 6,000 tons during the year 1829. In a period of thirty-

[1] Gallatin, Albert, "Memorial of the Committee of the Free Trade Convention. Submitted in January, 1832, to the Senate and House of Representatives of the United States." In *State Papers and Speeches on the Tariff*, edited by F. W. Taussig, pp. 183-185. Cambridge, 1893.

nine years, while the population has more than trebled, the American navigation employed in the foreign trade has only increased 88%. If we could be tempted to argue in the same manner as some of the advocates of restrictions, we might recur to the official returns and assert that in the year 1801 the registered tonnage amounted to 718,000, and, on account of the treaties of Amiens and Luneville, fell at once, in the year 1802, to 560,000 tons; but we happen to know that the amount was corrected, and is truly stated for 1802, whilst that stated for 1801 and the immediately preceding years was erroneous and exaggerated. We have also been informed that the great apparent diminution, from the amount stated for the year 1817, at 809,000, to 606,000 tons in 1818, is owing to a similar correction, which took place in the last-mentioned year. We then find that, from 1790 to 1793, when the general European war commenced, the registered tonnage had increased from 346,000 to 367,000 tons, or at the rate of 7,000 tons a year; between 1793 and 1802, from 367,000 to 560,000 tons, or at the rate of more than 21,000 a year; and between 1818 and 1828, from 606,000 to 656,000 tons, or at the rate of 5,000 a year. The comparative rate of increase during the second of those periods sufficiently shows the much greater effect produced by the neutrality of America during a general war, than by any other cause whatever. No comparative inference can be drawn from the period extending from 1802 to 1818, as it embraces years of neutrality, of war with England and of general peace. The increase for those fourteen years was only 40,000 tons; but, notwithstanding the general incorrectness of the intermediate returns, they show, at least, that there had been a continued and great increase as late as the year 1811, the return for which was, it is believed, also corrected. A still more forcible view of the subject is exhibited in the comparative amount of American and foreign tonnage annually entered into the ports of the United States, from the year 1790 to this day, respecting which reference is made to the returns and reports already before Congress.

But the discriminating duties were not at all intended for the purpose of excluding foreign navigation from a fair and equal competition with that of the United States, in the transportation of the objects of commerce between them and foreign countries. Those duties were avowedly retaliatory, and intended for the purpose of inducing those nations to repeal the duties of a similar nature, which they had imposed on the American navigation. Their sole object was "free trade"; and the object has been attained, because, in that case, the means are adapted to the purpose, inasmuch as the retaliation operates directly on the subject of contention. Treaties or arrangements, founded on reciprocity, and establishing a perfect equality, have been substituted [for] the discriminating duties, by which that object was but imperfectly obtained. When the complaint is made that this happy state of things is disturbed, and that an inequality injurious to American industry is the result of the acts of our own Legislature, the

restrictionists, who consider their panacea as a universal remedy, coolly answer that further protection shall, if desired, be extended to the American navigation; that is to say, that, still leaving the evil now complained of to operate, the discriminating duties which cannot remove it shall again be reinstated, and the convenient existing compacts shall be abrogated.

15.[1] The increase of the tonnage of the United States has been without example, in the history of the commercial world. This has been owing to the increased quantity of bulky articles of domestic produce exported, to the increase of their population, and to the extent of their carrying trade.

The actual tonnage was not ascertained, at the Treasury Department, until the year 1793. Previous to that time, the only account of the tonnage kept at the Treasury was that on which duties were collected, and which included the repeated voyages made by the same vessels in the course of the year.

The following is the amount of tonnage on which duties were collected from 1789 to 1792 inclusive, with its employment, in the foreign trade, coasting trade, and fisheries:—

	Foreign trade.		Coasting trade.		Fisheries.
1789	123,893	–	68,607	–	9,062
1790	346,254	–	103,775	–	28,348
1791	363,110	–	106,494	–	32,542
1792	411,438	–	120,957	–	32,062

In consequence of acts of Congress passed in 1792 and 1793, no vessel can be employed, in foreign trade, unless duly *registered* by the Collector of the district, where such vessel belongs, and the owner obtains from the Collector a certificate of such registry; and no vessel can obtain a register, unless she was built in the United States, or has been taken and condemned as lawful prize, and is owned by an American citizen.

No vessel can be employed in the coasting trade, unless duly *enrolled* or *licensed* by the Collectors of the districts. This register, enrollment, or license, specifies the tonnage of each vessel, and an account of each vessel so registered, enrolled, or licensed, is annually transmitted by the Collectors, to the Treasury Department.

There are also other vessels employed in foreign trade, owned by citizens of the United States, but which, on account of being foreign built, or some other cause, are not entitled to a register, or to be considered as American vessels. These vessels have however papers called sea letters, and are therefore denominated *sea letter* vessels. In 1806, the tonnage of vessels having sea letters, and employed in foreign trade, was eighty-seven thousand tons.

[1] Pitkin, Timothy, *A Statistical View of the Commerce of the United States of America*, pp. 387-391. Hartford, 1816. See note p. 118.

To give an American character to a vessel, it is not necessary that any part of the crew, except the captain, should be citizens of the United States. If the captain be an American citizen, all the rest of the crew may be foreigners.

The following duties on tonnage are paid in the United States, by *permanent acts.*

American registered vessels, pay 6 cents per ton upon entry,

Coasting vessels,	6 — do.	do.	per annum,
Fishing vessels,	6 — do.	do.	do.

American vessels not registered (having sea letters) 50 cents per ton upon entry.

American built vessels, owned by foreigners, 30 cents per ton, and 50 cents light money.

Foreign built vessels, owned by Americans, 50 cents per ton.

Vessels entirely foreign, 50 cents per ton and 50 cents light money.

By an act passed July 1st, 1812, and which is to continue during the war, vessels belonging wholly, or in part, to the subjects of foreign powers, pay an *additional duty* of one dollar and fifty cents per ton.

With respect to merchandize imported, American registered vessels pay American rates of duties, and merchandize imported in all other vessels, whether having sea letters, or being American built, are owned by foreigners, or foreign built, are owned by Americans, or are entirely foreign, pay foreign duties.

By an act of the 27th of March, 1804, an American registered vessel loses its American character, "if owned by a person *naturalized* in the United States, and residing for more than one year in the country from which he originated, or for more than two years in any foreign country—unless such person be in the capacity of Consul, or other public agent."

It is understood, that the late Commercial Treaty between the United States and Great-Britain places the tonnage duties of the vessels of both nations on the same footing in their respective ports. Whether this will eventually benefit American navigation, indeed, whether it will not be injurious to it, remains yet to be decided; and experience alone must determine. Were the British West-India ports open to American vessels, there would, perhaps, be less room to doubt on the subject. The American trade with the British West-Indies always has been, and will, probably, continue to be great; and can now only be carried on in British vessels, navigated according to British laws. Should this policy continue, there can be little doubt, that, in this trade, American capital, to a certain extent, will be employed in navigating British vessels, and in supporting British seamen. And it is, perhaps, yet doubtful, whether in the circuitous trade between Great-Britain and her West-India Islands, by the way of the United States, British vessels will not be able to carry, on freight, between the United States and Great-Britain, cheaper than American vessels.

The amount of registered tonnage, employed in foreign trade, from 1793, to 1813, was as follows, viz.:[1]—

	Tons.	95ths.
1793	367,734	23
1794	438,862	71
1795	529,470	63
1796	576,733	25
1797	597,777	43
1798	603,376	37
1799	669,197	19
1800	669,921	35
1801	718,549	60
1802	560,380	63
1803	597,157	05
1804	672,530	18
1805	749,341	22
1806	808,284	68
1807	848,306	85
1808	769,053	54
1809	910,059	23
1810	984,269	05
1811	768,852	21
1812	760,624	40
1813	674,853	44

And the following tonnage was employed in the coasting trade, from 1793 to 1812.

	Enrolled. Tons 95ths.		Licensed. Under 20 tons. Tons 95ths.
1793	114,853 10	–	7,217 53
1794	167,227 42	–	16,977 36
1795	164,795 91	–	16,601 59
1796	195,423 64	–	22,416 66
1797	214,077 5	–	23,325 66
1798	227,343 79	–	24,099 43

[1] Editor's Note.—Official statistics from 1800-1840 give the following totals for gross tonnage employed in foreign trade (including the whale fisheries):

Year	Gross Tonnage
1800	670,573
1810	984,608
1820	620,102
1830	577,268
1840	899,765

(Department of Commerce: *Statistical Record of the Progress of the United States, 1800-1920,* p. 798, edited by Edward Whitney. Government Printing Office, 1920.)

	Enrolled Tons 95ths.		Licensed. Under 20 tons. Tons 95ths.
1799	220,904 46	–	25,736 8
1800	245,295 4	–	27,196 91
1801	246,255 34	–	28,296 91
1802	260,543 16	–	29,079 58
1803	268,676 12	–	30,384 34
1804	286,840 1	–	30,696 56
1805	301,366 38	–	31,296 73
1806	309,977 5	–	30,562 54
1807	318,189 93	–	30,838 39
1808	387,684 43	–	33,135 33
1809	371,500 56	–	33,661 75
1810	371,114 12	–	34,232 57
1811	Enrolled and licensed,	–	420,362
1812	do. do.	–	477,971

The increase of the registered tonnage, or that employed in foreign trade, from 1793 to 1801, was three hundred and fifty thousand eight hundred and fifteen tons and thirty-seven ninety-fifths, having nearly doubled, in that short period. From 1793 to 1810, a period of seventeen years, the increase of tonnage, employed in foreign trade, was six hundred sixteen thousand five hundred and thirty-five tons and eighty-two ninety-fifths. In 1793, the tonnage employed in the coasting trade, was one hundred twenty-two thousand and seventy tons and sixty-three ninety-fifths, and in 1801, amounted to two hundred seventy-four thousand five hundred and fifty-one tons, making a difference of one hundred fifty-two thousand four hundred and eighty-one tons; and from 1793 to 1810, the increase was two hundred eighty-three thousand two hundred and seventy-six tons. We have before stated the amount of tonnage employed in the fisheries; the increase from 1793 to 1807, was about forty thousand tons. . . .

CHAPTER V

EXPANSION INTO THE WEST: 1783-1820

THE slow development of the Northwest previous to the Revolutionary War was partly due to the existence of large tracts of unoccupied land east of the mountains and partly to the attitude of Great Britain. Not altogether without reason the mother country desired to concentrate the population of the Colonies as close to the Atlantic coast as possible. The westward expansion, so it was felt, would introduce insurmountable administrative problems; it would endanger the relations of Great Britain with the Indians and threaten to interfere with the fur trade. Moreover, the belief existed that an independent state might easily be created in the event of dissatisfaction with the British administration. During the Revolutionary War and immediately following, a revival of interest in the Northwest occurred. With the object of developing this territory the Northwest Ordinance was passed in 1787. The settlement in this extensive area of the pioneer farmer now became possible under the most favorable conditions (No. 1). Not only did European immigrants seek economic freedom in the "West," but likewise a steady influx of settlers from the Atlantic coast now made its appearance.

Settlements in the *North-* and *Southwest* began even before the Revolutionary War but did not assume importance until the opening of the nineteenth century. The development of this territory then began to be pressed with vigor—agriculture and industry both becoming the means of livelihood of a steadily increasing number of settlers. (Nos. 2-7).

The disposal of public lands was hindered at first by a provision in the federal laws which prevented the sale to any one individual of less than 640 acres. Combined with the fact that the federal government charged a price somewhat higher than the price for available lands held by the states—*e.g.*, Kentucky and Tennessee—many prospective buyers were unable to obtain access to the public domain. With the object of remedying this situation the minimum acreage that could be bought was reduced in 1800 to 320 acres and the price fixed at $2 per acre. Further reductions in the minimum

acreage were made in 1804 and again in 1820. The Act of 1800 moreover had provided for an instalment plan of payment, which not infrequently resulted in excessive purchases. When the price of land was reduced to $1.25 per acre in 1820, the instalment provisions of the Act of 1800 were eliminated (Nos. 8-12).

Settlements in the Old Northwest

(*Observations addressed to the Earl of Hillsborough, in the year 1770, when Secretary of State for the North American Department.*)

1.[1] No part of North America will require less encouragement for the production of naval stores, and raw materials for manufacturies in Europe, and for supplying the West India islands with lumber, provisions, &c. than the country of the Ohio; and for the following reasons:

1st. The lands are excellent, the climate temperate; the native grapes, silk-worms, and mulberry trees, abound every where; hemp, hops, and rye, grow spontaneously in the vallies and low lands; lead and iron are plenty in the hills; salt springs are innumerable; and no soil is better adapted to the culture of tobacco, flax, and cotton, than that of Ohio.

2nd. The country is well watered by several navigable rivers, communicating with each other;—by which, and a short land carriage, the produce of the lands of the Ohio can, even now (in the year 1772), be sent cheaper to the sea port town of Alexandria, on the Potomac river in Virginia (where the troops of General Braddock landed,) than any kind of merchandise is sent from Northampton to London.

3d. The river Ohio is, at all seasons of the year, navigable with large boats, like the west-country barges, rowed only by four or five men; and from the month of February to April large ships may be built on the Ohio, and sent to sea, laden with hemp, iron, flax, silk, tobacco, cotton, potash, &c.

4th. Flour, corn, beef, ship plank, and other useful articles, can be sent down the stream of the Ohio to West Florida, and from thence to the West-India islands, much cheaper and in better order, than from New York or Philadelphia to those islands.

5th. Hemp, tobacco, iron, and such bulky articles, may also be sent down the stream of the Ohio to the sea, at least 50 per cent cheaper than these articles were ever carried by land carriage, of only sixty miles, in Pennsylvania; where wagonnage is cheaper than in any other part of North America.

6th. The expense of transporting European manufactures from the sea to the Ohio, will not be so much as is now paid, and must ever be paid, to a great part of the countries of Pennsylvania, Virginia, and Maryland. Whenever the farmers or merchants of the Ohio, shall

[1] *The Navigator; containing directions for navigating the Monongahela, Allegheny, Ohio and Mississippi Rivers; etc.,* pp. 358-359. Pittsburgh, 1814.

properly understand the business of transportation, they will build schooners, sloops, &c. on the Ohio, suitable for the West India or European markets: or by having black walnut, cherry tree, oak, &c., properly sawed for foreign markets, and formed into rafts in the manner that is now done by the settlers near the upper parts of the Delaware in Pennsylvania, and thereon stow their hemp, iron, tobacco, &c. and proceed with them to New Orleans.

It may not perhaps, be amiss to observe, that large quantities of flour are made in the distant (western) counties of Pennsylvania, and sent by an expensive land carriage to the city of Philadelphia, and from thence shipped to South Carolina, and to East and West Florida, there being little or no wheat raised in those provinces.

The river Ohio seems kindly designed by nature, as the channel through which the two Floridas may be supplied with flour; not only for their common consumption, but also for the carrying on an extensive commerce with Jamaica, and the Spanish settlements on the bay of Mexico. Millstones in abundance are to be obtained in the hills near the Ohio: and the country is every where well watered with large and constant springs and streams for grist and other mills.

The passage from Philadelphia to Pensacola is seldom made in less than a month, and sixty shillings per ton, freight, (consisting of sixteen barrels,) is usually paid for flour, &c. thither. Boats carrying 800 or 1000 barrels of flour may go in about the same time from Pittsburgh as from Philadelphia to Pensacola, and for half the above freight; the Ohio merchants would be able to deliver flour, &c. there in much better order than from Philadelphia, and without incurring the damage and delay of the sea, and charges of insurance, &c. as from thence to Pensacola.

This is not mere speculation; for it is a fact, that about the year 1746, there was a great scarcity of provisions at New Orleans; and the French settlements at the Illinois, small as they then were, sent thither in one winter upwards of eight hundred thousand weight of flour.

2.[1] We have seen so much to surprise us in the rapid settlement of this state [Ohio], that we are in some degree prepared to hear of corresponding improvements in the arts and manufactures. Let it be recollected, however, that about twenty years ago, this territory was a forest, in a state of nature, trodden only by wild men and wild beasts—the indian, the wolf, and the panther. It now contains at least 300,000 free inhabitants. Towns are built; churches erected; academies and colleges founded; banks established; manufactories fixed; science and refinement, with ease and independence, extending in all directions. The sturdy hand of honest labor has prostrated the forest—and rich fields of grain occupy the spot where the bounding deer lately sported, or the tardy buffalo regaled on the luxurious productions of nature. How changed the scene!—the bustling town supercedes the indian vil-

[1] Niles: *Weekly Register,* vol. vi, pp. 209-210 (May 28, 1814). See note pp. 58-59.

lage; the wood rattles with the sound of machinery—the rivers are covered with boats; the *yeo heave o* of the sailor is heard; and the mighty vessel, impelled by steam, takes place of the lonely canoe of the aboriginal inhabitant!

The wisdom of the people of *Ohio*, shewn in the excellency of their laws; and particularly in that which ordained the state should be peopled only by *freemen*, has done much in aid of what Providence so liberally bestowed, in a rich soil, filled with valuable minerals, and watered with many fine rivers and streams. May they persevere in well doing! and, by their example, lead the citizens of other states to happiness and ease.

The manufactories of *Ohio* must needs be in their infancy—but their infancy is like that of *Hercules*, strangling *foreign influence* in its cradle. We regret our limited information as to the improvements in many parts of this state. Indeed, much of that we do possess (except from our private correspondence) is a year or two old—and a year makes greater changes in *Ohio* than half a century does in many countries and states.

. . . . . .

The abstract of the returns of the marshals of the United States, made in the autumn of 1810, presents us with the following items of goods manufactured in *Ohio* that year. It affords but little idea of the state of things in 1814—yet its insertion may prove satisfactory to some.

			value
Cotton goods made in families,	Yds.	56,072	$ 43,600
Cotton factories	No.	two	
Hats		276,267	397,979
Flaxen cloths	Yds	1,093,031	425,149
Cloths and stuffs unnamed		701,156	418,244
Woolen cloth, in families		93,074	112,485
Woolen manufactories	no.	none	
Looms for cotton and wool		10,856	
Carding machines		18	
Fulling mills		21	
Cotton spindles in operation		768	
Furnaces	no.	three	118,490
Forges, tilt hammers, &c.		none	
Naileries		24	64,723
Tanneries		217	153,581
Flaxseed oil mills		4	3,941
Distilleries		343	580,180
Breweries		13	5,712
Paper mills		2	10,000
Gun powder mills		6	7,335
Salt works, bush. made		24,000	24,000
Sugar, (maple)	lbs.	3,023,806	308,932

These are all the returns of the manufactures of Ohio in 1810, and the gross value was estimated at $2,894,290.

This state is well calculated for breeding sheep, and they are becoming very numerous. A great many have lately arrived in *Ohio* from the eastern states, and are dispersed through the whole country. The increasing demand for wool has astonishingly augmented the stock of this animal. Cases near *Chilicothe* and *Canton* have already been mentioned. About *Marietta*, they are particularly attended to.—Near *New-Lisbon* they are numerous; also at *Worthington, &c. &c.* Carding machines, fulling mills, &c. are to be found in every neighborhood.

Hemp and *flax*, and manufactures of them, prosper in Ohio. Much coarse linen and yarn is exported. Great quantities have been sent to the Atlantic states! The maple trees produce 3,500,000 lbs. of sugar a year. Ohio is rich in clays, ochres, and minerals—coal, iron, sulphur, salt, some silver, &c.—There are also quarries of excellent flint and of *invaluable* burrs for mill stones, superior to the French. . . . There are also many plants of great interest, such as the ginseng, columbo, &c.

Great herds of cattle and hogs have been driven from *Ohio* across the mountains; thousands have reached the *Baltimore* market, in a year. . . .

3.[1] Pittsburgh has long been considered by the American Government as the key of the Western Countries. It was from thence that the Federal forces were sent against the Indians, who opposed the first establishment of the Americans in Kentucky and on the banks of the Ohio. But now that the Indian nations have been driven back to a great distance, and deprived of the power of annoying the inhabitants, even in the remotest parts of the interior; and the Western Countries having also acquired a vast population, there is at Pittsburgh only a weak garrison, in palisaded barracks, contiguous to the town, on the bank of the river Alleghany.

But though this town has lost its importance as a military post, it has acquired more in point of commerce. It is the *depôt* of merchandize from Philadelphia and Baltimore, sent thither at the commencement of spring and autumn, to supply the States of the Ohio and Kentucky, and of the Settlement of Natches. Through these towns, in the course of last war, they communicated also with New-Orleans, sending their goods down the Ohio and Mississippi.

The conveyance of merchandize from Philadelphia to Pittsburgh, is performed in large covered waggons, drawn by four horses, harnessed two a-breast. The price of the carriage varies according to the season; but seldom exceeds six dollars per *cwt.* The distance is computed to

[1] Michaux, F. A., *Travels to the Westward of the Alleghany Mountains . . . in the year 1802,* pp. 30-33. London, 1805.

Editor's Note.—F. A. Michaux (1770-1855) was by profession a botanist. In 1812 he was sent by the French government to the United States to investigate the forests of the North American continent.

be three hundred miles from Philadelphia to Pittsburgh, and the carriers perform the journey in twenty or four and twenty days. The charge of the conveyance is not high, for the waggons generally return empty; sometimes, however, they bring skins, which come from the Illinois, or from Ginseng, and which are commonly met with in that part of Pennsylvania.

Pittsburgh is not only the depository of the merchandize of Philadelphia and Baltimore, for the Western Countries, but also of numerous settlements that are formed on the Monongahela and the Allegany. The territorial produce of these countries finds an easy and advantageous channel through the Ohio and the Mississippi. Grain, hams, and bacon, are the principal articles which are sent to New-Orleans, whence they are re-exported to the Antilles. Bar-iron, coarse linen cloths, bottles made at Pittsburgh, brandy, whiskey, and butter in casks, are also exported for the consumption of Louisiana. Great part of these stores come from Redstone, a small but commercial town, situated on the Monongahela, at the distance of fifty-five miles beyond Pittsburgh. These united advantages have, in the course of ten years, increased the population and value of property in this town in a ten-fold degree, and continue to assist its growth, which daily becomes more rapid. Most of the merchants who are established at Pittsburgh and its environs, are either partners or factors of commercial houses in Philadelphia. Their agents at New-Orleans dispose of as much goods as they can for ready money; or they take cotton, indigo, and clayed sugar, the produce of Lower Louisiana, in exchange. These they forward by sea to the houses in Philadelphia and Baltimore, whence they come by land to Pittsburgh and its neighbourhood, where most of them reside. Notwithstanding the length of the passage from New-Orleans to either of these ports, in from five and twenty to thirty days, and that then they have to make a journey by land of three hundred miles to return to Pittsburgh, they prefer that way, because it is less laborious than the return by land from New-Orleans to Pittsburgh; this last distance being from fourteen to fifteen hundred miles. But when the vessels are bound only for Limeston, in Kentucky, or for Cincinnati, in the State of the Ohio, the conductors return by land, thus making a journey of from four to five hundred miles.

The navigation of the Ohio and of the Mississippi is so much used, that the distance from Pittsburgh to New-Orleans, is ascertained with sufficient exactness, and has been settled at 2100 miles. Merchant vessels in spring, generally allow forty-five, or fifty days to perform this passage; but two or three persons in a *pirogue*, or Indian bark, may accomplish it in twenty, or five and twenty days.

What many people are perhaps ignorant of in Europe is, that at Pittsburgh, and on the Ohio, are constructed vessels of heavy burden. One of the principal docks is on the Monongahela, at the distance of 400 yards beyond the extremity of the town. The sorts of timber used in their construction are, the white oak, *quercus alba;* the red

oak, *quercus rubra;* the black oak, *quercus tinctoria;* a species of walnut tree, *juglans pignut;* cherry tree, *cerasus virginiana;* and a species of pine, which is employed as well for the masts, as for those parts of the ship which require a lighter wood. All these woods growing near, the expences of building are here considerably less than in the ports of the Atlantic States. The ropes are manufactured at Redstone and at Lexington, where two fine rope-walks have been established, which also furnish rigging for the ships that are built at Marietta and Louisville. On my passage to Pittsburgh, in the month of July 1802, there were on the stocks, a ship of three masts,[1] of 250 tons, and a galliot of 90, which were on the point of being finished. In the following spring, they were to go down to New-Orleans, freighted with the productions of the country, performing a passage of about 733 leagues, before they arrive at the ocean. From what follows, there is no doubt but that they might equally construct vessels at the distance of 200 leagues above the mouth of the Missouri, of fifty from that of the river Illinois, and even in the Mississippi, and at 200 above the fall of these rivers; that is to say, at 650 leagues from the sea; for their bed, in the space alluded to, is as deep as that of the Ohio, at Pittsburgh, and it would be erroneous to suppose that the countries through which these rivers pass, may not, ere long, be so peopled as to render them capable to similar undertakings. The rapid population of the three new Western States, under circumstances infinitely less favourable, strengthens this assertion. These states, which thirty years ago contained scarcely 3000 inhabitants, now possess more than 40,000; and, among all the habitations, which on the road are seldom at a greater distance than four or five miles, it is very rare to meet with one, even among the most flourishing, where one might not confidently enquire of the proprietor, whence he had emigrated; or, after the manner of the Americans,—*From what part of the world did you come?* as if these vast and fertile regions ought to be considered as the central point, and the common country of all the inhabitants of the globe. Now, if we reflect on these rapid and astonishing improvements, what expectations may not be formed, of the high degree of prosperity to which the western countries may be raised, and of the new progress which the commerce, population, and culture of these parts will make, by the uniting of Louisiana to the American territory?

4.[2] [Pittsburg], emphatically styled the Birmingham of America, is pleasantly situated at the confluence of the Alleghany and Monongahela rivers, which here form the majestic Ohio. Pittsburg lies 280 miles distant from Philadelphia and 124 from Erie.

This great manufacturing town contains from eight to ten thousand inhabitants; besides, at all times, a great influx of strangers, from various parts of the United States.

[1] Since my return, I have been informed that this ship, called the *Pittsburgh,* had arrived at Philadelphia.

[2] Niles: *Weekly Register,* vol. viii, p. 141 (April 29, 1815). See note pp. 58-59.

Among its manufactories are the following:—

1st, A steam rolling and slitting mill, (connected with which is a machine for cutting and heading nails, which is done with great facility) of seventy horse power, on Evans' plan.

2d, A steam flour mill, of twenty-four horse power, on Evans' plan, driving three pair of stones, which grind about sixty thousand bushels, annually.

3d, A steam paper-mill, of three vats, and twenty horse power, on Evans' plan—in which the consumption of rags is about 120,000 pounds, yearly.

4th, A steam cotton factory, of twenty horse power, on Watt & Bolton's plan.

5th, A steam woolen factory and fulling mill, of . . . horse power, on a new plan, by the owner, Mr. Arthurs.

6th, A wire manufactory, propelled by steam.

Steam engines—There are three extensive establishments in this place for the *making* of steam engines:—

1st, The "Pittsburg Steam Engine Company," construct them on Evans' plans—this establishment is very extensive, embracing a foundery and a smithery. The hands employed by this company are about one hundred, generally. Many of the anchors were made by this company for commodore Perry's squadron on lake Erie.

2d, Bolton and Watt's plan, improved, are made, extensively, by Thomas Copeland.

3d, The "Mississippi Steam-boat Company," on Fulton's plan.

Steam-boats—In 1810 the building of steam-boats was commenced here by Mr. Rosevelt, in conjunction with Messrs. Fulton & Livingston, of New-York, by building the "New-Orleans," of 138 feet keel, and between 3 or 400 tons burthen; after which were built the "Vesuvius," "Enterprize," "Etna," and "Buffalo"—besides which the . . . , lately launched, and one on the stocks, which will be launched in the ensuing summer.

Glass—There are at this place two white and three green glass-houses. This article of manufacture has become one of the staples of our trade. The amount of glass manufactured, annually, is valued at $200,000. Glass cutting is also connected with these establishments, and it is done not inferior to the best cut glass in Europe.

Air-Founderies—There are in Pittsburgh, three large and extensive air-founderies, where are cast all kinds of hollow-ware, castings, cannons, cannon balls, smiths' anvils, sad irons, steam-engine castings, sugar boilers, iron boilers for distilleries, &c.; besides one in Birmingham, (a new town opposite Pittsburg) where all kinds of small work is done—and a small foundery for casting butt-hinges, buckles, &c.

A mill for boring cannon is connected with one of the above founderies.

Breweries—There are three breweries on an extensive scale. They

consume about 30,000 bushels of barley, and manufacture 10,000 barrels of porter, beer and ale, annually, worth about $60,000.

Lead—Two white and one white and red lead factory, to which are connected chemical laboratories.

Woolen—There is a very large woolen factory which makes all kinds of cloth, blankets, vest patterns, hosiery, felting, &c. besides several smaller ones.

Cotton—There is, besides the one propelled by steam, several smaller cotton factories, which together make an immense quantity of various kinds of goods.

Warehouses—The number of warehouses is very great, no less than 16, the greater part of them large brick buildings, on the two rivers, which are always full.

Rope walks—Three large and extensive rope walks, which make all kinds of rope, twine and cordage. At one of these walks the principal part of the cordage for commodore Perry's fleet was made. Two cables weighed about 4,000 pounds each, and were 4½ inches in diameter.

Buttons—There are three button makers, who make about 200 gross weekly, being 10,000 gross, or 120,000 dozens annually, averaging 75 cents per gross, making a yearly amount of $7,500.

A Pottery has been lately established by Trotter & Co. of Philadelphia, where are made pitchers, coffee and tea pots, and cups, &c.

1 stirrup iron and bridle bit manufactory.
1 wheel iron manufactory.
1 suspender do.
2 umbrella do.
2 brass founderies.

Besides which there are—8 tanneries; 1 morocco factory; 7 tinners and coppersmiths; 8 hatteries; 8 silversmiths and watch makers; 7 cabinet makers; 8 chair makers; 5 printing offices; 4 book binderies; 2 silver platers; 3 trunk makers; 2 gun smiths; 6 naileries; 6 tallow chandleries; 2 brush makers; 6 bakers; 4 plane makers; 4 tobacconists; 2 carvers and gilders.

There are 8 places for public worship, viz. 2 for Presbyterians; 1 for Episcopalians; 1 for Seceders; 1 for Covenanters; 1 for German Lutherans; 1 for Methodists; and a Roman Catholic chapel.

Three banking houses—viz. the bank of Pittsburgh; the Farmers' and Mechanicks' bank of Pittsburgh; the office of discount and deposit, a branch of the Pennsylvania bank.

The Pittsburgh permanent library company has about 2000 volumes, with an annual fund of about $500.

The other public buildings are—a court house, three market houses, and a jail.

5.[1] . . . Nearly all the Europeans who have published observations

[1] Michaux, F. A., *Travels to the Westward of the Alleghany Mountains . . . in the year 1802,* pp. 15-16. London, 1805. See note p. 132.

on the United States, have contented themselves with remarking, according to the common report, that these countries [comprising the *Western Country*] are very fertile; but they have not entered into any particulars respecting them. It is true, that before arriving at these new establishments we are obliged to traverse a considerable extent of uninhabited tracks; and that the journies are long and difficult, and afford nothing of interest which might tend to delineate the manners of the people who inhabit the towns or other places: but as the natural history, and particularly the vegetable productions and the state of agriculture, in those districts, formed the principal objects of my enquiries, I was under the necessity of travelling at a distance from those parts which are best known, and passing my time in such as have been but slightly mentioned. I therefore made a journey to these distant countries; and had nearly two thousand miles to travel before I could return to Charleston, where I was absolutely obliged to be by the 1st of October. I expected indeed that my journey would inevitably be impeded by various obstacles of a local nature, which it would be impossible to foresee or prevent:—these considerations, however, did not induce me to change my determination, and I fixed my departure from Philadelphia for the 27th of June 1802. As I had no wish to travel slowly, to make observations which had already been repeated by various travellers, I resolved to proceed in the most expeditious manner to Pittsburgh, situated at the head of the Ohio; and at Philadelphia I took the stage which went to Shippensburgh, by way of Lancaster, York, and Carlisle. Shippensburgh is one hundred and forty miles from Philadelphia, and is the most distant place on this road to which one can travel by the public carriages.

Till the year 1802, the stages which went from Philadelphia proceeded southwards only as far as Petersburgh in Virginia, which is about three hundred miles from Philadelphia; but in the spring of that year a new line of communication was established between that town and Charleston. The journey requires fifteen days: the distance is about six hundred and fifty miles, and the price is fifty dollars. There are likewise stages between Philadelphia, New York, and Boston, as well as between Charleston and Savannah in Georgia; so that we have the convenience of public conveyance from Boston to Savannah, the distance of which is one thousand two hundred miles.

I reached Lancaster, which is sixty-six miles from Philadelphia, on the afternoon of my departure. The turnpike-roads are kept in good order, by means of tolls collected at certain distances. In this space the houses are nearly all within sight one of another, and each owner has an inclosure. Throughout the United States the cultivated lands are all inclosed, to secure them from the ravages of all kinds of cattle; which, for the greater part of the year, are left by every proprietor in the woods that are for this purpose common to them all. In the vicinity of the towns these inclosures are made with stakes, placed at the distance of ten or twelve feet from each other, and perforated

with five mortises at the space of eight or nine inches; in which are fitted branches of trees unstripped of their bark, of a proper length, and about four or five inches in diameter. This mode of inclosing is most proper and economical, because it saves the wood, which is very dear in the environs of the large northern towns; but in the interior parts and the southern states, the inclosures are made of pieces of wood of an equal length, placed one above another in an angular form, and supported by their ends, which are crossed and intertwined together. The inclosures are generally seven feet high. In the lower parts of Carolina they are made of pine; but in the rest of the country, and in the whole of the north, they are of oak or ches[t]nut. When they are kept in good order they last about five-and-twenty-years.

The country before we arrive at Lancaster is very fertile; the fields are covered with corn, rye, and oats, the fine growth of which is a proof that the soil is better than between New York and Philadelphia. The inns on the road are very numerous, and at almost all of them the people speak German. . . .

Early Settlements in Kentucky and Tennessee

6.[1] The first permanent settlement was made in *Kentucky*, then a part of *Virginia*, in 1773; but the war of independence, that shortly followed, checked emigration, and prevented, for 8 or 10 years, those very great improvements that have since astonished us.—The beauty of the country and richness of the soil, however, excited general attention soon after the peace, and many persons of respectability and fortune fell in with the current of population rushing westward. *Kentucky* was received into the union as a state in 1792, and had two representatives in Congress; in 1800, *six* representatives; in 1810, *ten* representatives, and a gross population of 406,511 souls. As emigrants are still numerous, it is probable the present number is little short of half a million.

This gallant and patriotic state has particularly distinguished herself in the present war; pouring forth her high-minded youth to the field, where courage, even to a fault, was their grand characteristic; and they suffered much by the allied white and red savages, under *Proctor*, but finally prevailed.

The progress of manufactures in *Kentucky* stands in full proportion to its rise of population; but our information as to *particulars* is very limitted, though much pains was taken to collect them. . . . We have, however, some letters from *Kentucky* for which we are thankful; yet they give but little light on the matters chiefly enquired for.

Some idea may be formed of the extent of those manufactures by the following extracts from the abstract of the returns of the marshals "of the state of the several branches of American manufactures" in 1810, however imperfect these returns in general are admitted to be.

[1] Niles: *Weekly Register*, vol. vi, pp. 249-250 (June 11, 1814). See note pp. 58-59.

MANUFACTURES OF KENTUCKY FOR THE YEAR 1810.

			value
Cloths and stuffs, all sorts	*yds.*	4,685,385	$2,057,081
Bagging for cotton and hemp	do.	453,750	159,445
Nails	lbs.	196,000	33,660
Spirits distilled	gals.	2,220,773	740,242
Gun-powder	lbs.	115,716	38,561
Salt	bush.	324,870	324,870
Looms	no.	25,559	
Tanneries	do.	167	255,212
Rope-walks	do.	38	398,400
Carding machines	do.	21	
Fulling mills	do.	33	
Furnaces	do.	4	
Forges	no.	3	
Paper mills	do.	6	
Oil mills	do.	9	
Maple sugar	lbs.	2,471,647	308,932
Salt petre	do.	201,937	33,648
Hemp	tons.	5,755	690,600
Gross value of the manufactures of Kentucky excluding the "doubtful articles."			4,120,683
Whole value including the "doubtful articles," such as maple-sugar, salt-petre and hemp, so called because it does not appear certain whether they are not *agricultural* products rather than manufactures			6,181,024

But this amount is, probably, not more than half of the real product of the year 1810; the manufactures of grain into flour and meal, and many other articles that we know *Kentucky* exported in vast quantities, are not mentioned at all. The hemp raised in 1811, was nearly double the quantity raised the preceding year; and the *salt petre* and *gun powder* made is greatly increased. "Big Bone Cave" yields 500 lbs. of salt petre per day, and many waggon loads of gun powder are latterly brought to the states on the sea-board. It is stated that the number of rope walks [has] doubled since 1810; some of them are *very* extensive establishments. The quantity of *cotton bagging* made is calculated at 1,000,000 yards *per annum*. The flour, whiskey, tobacco, bacon, hemp, coarse linens, and cattle, that Kentucky is capable of exporting, is immense. *Cotton* manufactories, with liberal capitals, are just getting fairly under way; they promise to become of great importance; but it takes some time to make their machinery in the "backwoods." In one or two years, *many* thousand spindles will be at work. The steam power is applied to some of those, as well as for grinding of grain. In *Kentucky*, until lately, but little attention was paid to raising sheep; but the approved breeds are pretty well dispersed, and there are some fine flocks. The general attention of the

farmers is excited to them, and the country is exceedingly well adapted to support *millions*, at the smallest expense. There are some woolen manufactories, but the want of the raw material has prevented them from assuming the desired importance. The business of paper making has risen nearly to the demand. The state is rich in minerals; and the manufactures of iron are rapidly increasing. The cheapness of living in *Kentucky*, and the distance of a great part of the state from a market for its agricultural products, have taught the people the important advantages to be derived from giving to their commodities an increase of value by labor, which so much reduces the proportionate charges of transportation. We look to *Kentucky* for a *full supply* of such sail cloths, sheetings and linens as were heretofore received from *Russia*.

Lexington is the chief town of the state, though *Frankfort* is the seat of government. It has a population of about 6000. The public buildings are numerous and neat—it has one or two banks—steam power is applied to several manufactories. In 1811, its manufactures of hemp were valued at $500,000, there were eight cotton factories and 3 for wool—some have been erected since then, and every business has enlarged. All sorts of mechanics are prosperous; and *town lots* sell as high as they do in—*Boston*. The neighboring country is rich and beautiful, and daily rising in value. Land is dearer in the vicinity of *Lexington*, than in many parts of the old states. Entire farms have been sold from 60 to $100 *per acre*. Society is polished and polite. They have a theatre; and their balls and assemblies are conducted with as much grace and ease as they are any where else, and the dresses of the parties are as tasty and elegant. Strange things these in the "back woods!"—The houses are mostly built of brick, and some of them are splendid edifices—one or two of the inns yield to none in *America* for extensiveness, convenience and good living. The streets are generally paved.—Provisions are cheap. Mechanics pay 1.50 to 2.00 dollars a week for boarding. It has three or four printing establishments, and several book-stores. *Frankfort*, the seat of government, has 15[00] to 1800 inhabitants. It is well built with brick, and has several handsome public buildings. The penitentiary establishment is an honor to mankind; and the *chain bridge* lately built is highly creditable to the spirit of the people. *Louisville*, at the falls of the *Ohio*, is a lively place, and must become the seat of a great *commerce*. It is happily situated for manufactories of grain, hemp, iron, &c. having any extent of water power. It has several flour mills and saw mills, and an iron foundery has been recently established. The rope walks are extensive and much bagging is made. The population is from 1500 to 2000.

There are *many* other towns in the state that I would have been glad to notice were the particulars that belong to them in my possession. I only know that in several of them manufactories of various kinds have commenced under the happiest prospects, with good capitals and competent workmen. I wish them success.

Tennessee is much behind *Ohio* and *Kentucky* in manufacturing, but the attention recently paid thereto is considerable, and the prospect is encouraging. Tennessee became a state in 1796—population in 1791, 36,691; in 1795, 77,262; in 1800, 105,262; in 1810, 261,727, of whom 35,169 were slaves.—The present population is 300,000.

The returns of the marshals (before noticed) give the following items of the manufactures of Tennessee for the year 1810. . . .

Cotton mills	No.	4		
Cotton goods, made in families	Yds.	1,790,504		
Other stuffs	Do.	262,334		
Looms	No.	17,316		
Fulling mills	Do.	2		$
Furnaces	Do.	6	value	98,077
Bloomeries	Do.	6		17,799
Forges	Do.	7		110,488
Naileries	Do.	7		128,236
Guns—value				5,845
Tanneries	Do.	59		95,077
Spirits distilled	Galls.	801,245		400,959
Paper mills	No.	2		15,500
Copperas	Lbs.	50,600		
Glauber salts		591		
Cables and cordage, value				4,435
Gun-powder	Lbs.	44,373		
Maple sugar	Do.	162,340		
Salt petre	Do.	144,895		

Gross value of manufactures excluding "doubtful" articles 3,611,-029. These returns were very far short of the "whole truth," and the state of things has *materially* changed within the 4 years last past. Many manufactories have suddenly started into importance; yet the state is, perhaps, more purely agricultural than any other of the union. —Cotton has lately become the great staple; wool will probably become an article of considerable export in a few years. Some attention begins to be paid to raising sheep, and the country, by its mountains and vallies, presenting the changes that are supposed peculiarly favorable to the prosperity of that inestimable animal, is capable of sustaining many millions without detriment to its products of grain, cotton, &c. The value of land is considerably increased; but a good deal of it being broken, it seems difficult to give an average price. *Nashville* and *Knoxville* are the principal towns; the seats of a great commerce and of several manufactories.—But every thing is yet young here; and the profit on cotton had chiefly monopolized the capital of the state. Nevertheless, four-fifths of the people are clothed with domestic manufactures, generally household.

Tennessee is also rich in minerals, and will probably become eminent for the heavier manufactures of iron. The salt springs are numerous.

One lately discovered in White county by gen. Bird Smith, yields a supply of water supposed sufficient for the use of the whole state, so strongly impregnated as not to dissolve salt put into it. Gen. Smith having ascertained the strength of the water, directed a great rock to be bored; in a little while the workmen struck upon a vein of salt water, that now gushes "to some heighth from the mouth of a three inch hole." The place is on a navigable branch of the *Cumberland* river, and in a thickly timbered country. The business will be extensively prosecuted.

New Orleans as a Center of the Export Trade

7.[1] As yet but little progress has been made in what may be strictly called manufactures in *Louisiana;* but the general condition of the country bears a proportionate improvement with the rest of the "Western World." The chief attention of the people has been paid to the cultivation of the cane and cotton. The sugar plantations are the most profitable establishments. The duty levied by the United States on foreign sugar (now 5 cents *per lb.*) operates as a *bounty* nearly equal to the original value of the commodity, to the planter of *Louisiana.* A full supply of this general luxury, for home consumption, may be looked for in a few years. The Attacapas country is fine for sugar, and rapidly settling. The whole quantity exported from *Louisiana* and the *Floridas* in 1802 was only 1,576,933 lbs.—the quantity made on the *Mississippi* river alone, is now estimated at 10,000,000 lbs. *Cotton* is, also a great staple—in 1812, 20,000 bales were exported—*many* more since that time. *Tobacco,* of a very superior quality, is cultivated in great quantities; and much *indigo* has been raised. Experiments are making with the *coffee* tree near or upon the shores of the *Mobile,* with every prospect of complete success. Pasturage is abundant westward of the *Mississippi;* it is said not to be uncommon for one man to mark from *one* to *three thousand* calves in a season, and to have from 10[000] to 20,000 head of fine cattle. The country is as healthy as any in the United States.

The steam power is applied to several extensive works in this state, particularly saw-mills.

New-Orleans may become the greatest emporium of the world, if it grows healthy; which it probably will do, from the improvement of the neighboring country. *Baltimore,* now one of the healthiest cities, was as insalubrious a few years ago as *New Orleans,* generally. By the introduction of *steam boats* (of which I believe there are now 8 or 10 on the western waters, and several building) an inland navigation of at least *twenty thousand miles,* penetrating in all directions the richest country on the globe, is happily afforded. Who shall dare to calculate the amount of the commerce that will pass to and fro through these natural channels, or estimate the value of the product of those regions about to teem with inhabitants! The mind is lost in the prospect; and

[1] *Ibid.,* p. 393 (August 6, 1814).

the most sanguine imagination cannot picture to itself what will be the great reality. There is not in the universe any thing to compare with *western America* for the bounties that nature has bestowed upon it—in a wholesome climate, rich soil and navigable waters.

The following return of the receipts at *New Orleans* from the "upper country" in the first five months of the year 1812, may give some idea of what is to be expected. *Ten* articles only are specified, and the value was nearly $2,000,000.

RECEIPTS AT NEW-ORLEANS FROM THE UPPER COUNTRY, FROM JANUARY 1ST TO MAY 31ST, INCLUSIVE, 1812.

Flour,	63,267	bbls.	average price $ 6	$379,602
Cotton,	31,092	bales	36	1,088,220
Bacon,	54,200	lbs.	9	4,878
Lead,	1,008,000	lbs.	8	80,640
Lard,	77,050	lbs.	9	6,934
Whiskey,	3,671	bbls.	16	58,736
Pork,	3,111	bbls.	10	31,118
Corn,	8,680	bbls.	1.75	15,200
Tobacco,	1,573	hhds.	30	47,190
Rope yarn,	1,239	reels	90	111,510
				$1,824,028

Disposal of Public Lands

8.[1] The public lands, or lands not belonging to individuals or to corporate bodies, were, and continue to be, held, at least administratively, and for sale, as the property of the federal government; but under certain stipulations as bearing on the rights of the respective states, or territories, within which these lands are situated.

The lands lying east of the Mississippi, were, at the close of the revolution, claimed by the several states on the tenure of original colonial charters, which, although general in their terms, extended from sea to sea. At that period, the war had impoverished the coffers, increased the liabilities, and diminished the resources of the United States treasury, and recommendations were accordingly made to the several states, to cede their titles to the western lands in order to aid in the payment of the national debt. In accordance with this recommendation, several of the states ceded their titles to the lands claimed under their original patents.

[1] MacGregor, John, *The Progress of America, from the Discovery by Columbus to the Year 1846,* vol. ii, pp. 1189-90. London, 1847.

EDITOR'S NOTE.—John MacGregor (1797-1857) was a well-known British economist. For some time he lived in Canada, and while interested primarily in British America, his observations, which are unusually reliable, extended over the entire continent. His works include *Emigration to British America* and *Commercial and Financial Legislation of Europe and America.*

"The tracts, thus ceded, embrace three separate territories. One of those territories, comprising Ohio, Indiana, Illinois, Michigan, Wisconsin, and Iowa, a tract extending north of the river Ohio and west of Pennsylvania and Virginia, reaching northward to the northern boundary of the United States, and westward to the Mississippi, was originally claimed by Virginia; a state that was in the possession of Vincennes and Kaskaskias, having defended those places during the war of the revolution. Claims to the same territory, were urged by Massachusetts, Connecticut, and New York, which, together with Virginia, ceded to the union their rights to this tract. Georgia ceded to the union its claims to lands lying within the boundaries of the states of Alabama and Mississippi. North Carolina and South Carolina ceded their claims to land lying within the state of Tennessee."

The first tract was denominated the north-western territory. For the government of this territory, an ordinance was framed in 1787. The boundaries of the states within the limits of the territory, were fixed by the fifth article of the ordinance: that instrument providing, at the same time, "that there should be formed therein not less than three, nor more than five states." The ordinance declares that "the legislatures of those districts, or new states, shall never interfere with the primary disposal of the soil by the United States in Congress assembled, nor with any regulations Congress may find necessary for securing the title in such soil to the *bona fide* purchasers;" and, also, that "no tax shall be imposed on lands, the property of the United States, and that, in no case, non-residents should be taxed higher than residents." Upon the same subject, the constitution of the United States expressly provides, that Congress shall have power to dispose of, and to make all needful rules and regulations respecting the territory or other public property of the United States. The ordinance also prescribes, "that, when the several territories shall have attained a certain amount of population, they shall be admitted into the union upon an equal footing with the original states."

9.[1] Upon the public domains which formerly belonged to England, France, and Spain, various claims have been made by individuals to tracts, either by virtue of occupancy, or under the title of grants, made by those governments, before the lands were ceded to the United States. In order to adjust those claims, or rights, commissioners have been appointed by several acts of Congress to examine the validity of those titles or claims, to decide upon them, or to report the facts upon which they are founded, to Congress. Titles derived from legitimate authority, have been confirmed; and claims have also been confirmed upon grounds of equity, although the legal titles had not been perfect. In 1787, one million and a half of acres was sold to the Ohio company, by which the state of Ohio was first colonised. Two years afterward,

[1] *Ibid.*, pp. 1191-1192.

a contract was made with Mr. John Cleves Symmes, for the purchase of a million and a half of acres between the Great and Little Miami; but in consequence of the failure of the payment of the purchase money, the patent conveyed a much smaller tract.

The first act of Congress for the sale of public lands limited the sale to tracts of not less than four thousand acres each. This plan might have been convenient, but it was eminently favourable to land jobbing, by confining the purchase to a few rich persons, while those with small means were excluded from making such purchases from the government, and consequently obliged to pay high prices to the jobbers. In July, 1790, Alexander Hamilton, then secretary of the treasury, brought forward a scheme for the sale of the public lands, which provided—

> "That the tracts set apart to each settler, should not exceed 100 acres; that the prices of the land sold under special contract, should be thirty cents per acre, payable in gold or silver, or in public securities, computing those bearing an interest of six per cent per annum, the same as gold and silver, and those bearing a future or less interest at a proportionate value. In every instance of credit it was required, that one quarter should be paid down, and independent security be given for the residue, and that all surveys of the land should be made at the expense of the purchaser."

. . . . . .

The minimum price for the public land, previous to the year 1800, was two dollars per acre, one-fourth of which was required to be made at the time of the purchase, and the remainder in three annual instalments, a discount of eight per cent being allowed if the purchaser paid in advance. Jobbers continued to purchase land extensively. Many of those jobbers, speculating on credit, were ruined. They were aided by the banks to an extent that was, among other causes, fatal both to the jobbers and to the banks.

10.[1] The public lands were very early looked to as a source of revenue to the country. As early as 1776, Silas Deane, then a political and commercial agent of the United States in France, communicated to congress a plan for the sale and settlement of the territory northwest of the Ohio; and, as has been already observed, the calculations of the future value of this region formed the first great subject of collision between the several states of the confederacy. It was, however, a long time before an effective system was devised, by which the

[1] Ouseley, William, *Remarks on the Statistics and Political Institutions of the United States*, pp. 155-159. Philadelphia, 1832.

Editor's Note.—Sir Wm. Gore Ouseley (1797-1866) spent many years in the British diplomatic service, both in the United States and in South America. He was *attaché* at Washington from 1825 to 1832. It was during this period that he gathered the information which he incorporated into his *Remarks on the Statistics and Political Institutions of the United States*. His observations are interesting and accurate.

lands could be thrown open to settlement, or made available for the purpose of revenue.

Bounty-lands having been promised by the continental congress to the officers and soldiers of the continental army, it became necessary to redeem that pledge as early as possible. The controversies between the several states, and between them and the United States, retarded for some time the fulfilment of this pledge. On the 20th May 1785, an ordinance was passed by the congress of the confederation, for ascertaining the mode of disposing of lands in the western territory, and this was the first act of general legislation on the subject. . . . Under it very limited sales were made, not amounting, in the whole, to more than 121,540 acres.

Subsequently different sales were effected in proportion as lands were ceded to the United States by any of the individual states. Pennsylvania became a purchaser, and the Ohio Land Company also became large buyers to the amount of two millions of acres, afterwards reduced by agreement to one million; they paid two-thirds of a dollar per acre. This company originated in Massachusetts, and commenced the settlement of Ohio (then an uninhabited wilderness) in 1788; it now supports a population of about 1,000,000. Another sale was effected by an individual, named J. Symmes, of between 2 and 300,000 acres. He succeeded perfectly in settling the territory north-west of the Ohio.

But it was not till 1802 that the many and troublesome controversies that took place between the general government and the different states on the subject of the public lands were amicably adjusted.

North Carolina ceded to the United States the tract of country now forming the state of Tennessee, in 1789; and Georgia, after much embarrassing discussion, was the last to enter into the arrangement with the United States, by ceding that territory, now forming the States of Alabama and Mississippi; the United States contracting to extinguish the Indian title to lands within the limits of Georgia, "as soon as it could be done peaceably, and on reasonable terms."

Some account of the mode in which the public lands are disposed of in the United States may not be uninteresting at a moment when emigration is hourly increasing to our American colonies and the United States.

On the 10th of May 1800, an act of congress was passed, laying the foundation of the land system as it now [1832] exists. It has received several modifications at subsequent periods, two of which are of great importance, and will presently be stated.

Under this law, the substantial features of the land system of the United States are the following:

All the lands, before they are offered for sale, *are surveyed* on a rigidly accurate plan, at the expense of the government. This is the corner-stone of the system. In this consists its great improvement upon the land-system of Virginia, according to which warrants were granted to those entitled to receive them, for tracts of unsurveyed pub-

lic land. These warrants might be *located* on any land not previously appropriated. In the absence of geometrical surveys, it was difficult, by natural boundaries, Indian paths, and buffalo traces, to identify the spots appropriated; the consequence was, that numerous warrants were laid on the same tract, conflicting claims arose, and the land titles of the country were brought into a state of the most perplexing and injurious embarrassment. The state of Kentucky, and that portion of Ohio, allotted as bounty-lands to the Virginia troops, have constituted one great theatre of litigation from their first settlement. On the other hand, land titles acquired under the system of the United States, are almost wholly exempt from controversies arising from uncertainty of location or boundary.

11.[1] Till 1820 a credit was allowed on all purchases of public lands: in consequence of this system, large quantities of land had been purchased on speculation: and also in the ordinary course of purchases a vast amount of land-debt to the government had been contracted. To relieve the embarrassed condition of these debtors, an act was passed, authorizing the relinquishment of lands purchased, and substituting cash payments for the credit system. The most beneficial effects have resulted from this change, apart from the relief of those who were indebted to the government: at the same time the *minimum* price of the land was reduced from two dollars to one dollar and twenty-five cents an acre. In the first instance the public lands are offered for sale, under proclamations of the president, by public auction, with the limitation of the *minimum* rate. Lands not thus sold are afterwards subject to entry at private sale, and at the *minimum* price.

. . . . . .

It has been suggested, and with an appearance of justice, that the price of the public lands is too high. The government, having already reimbursed itself for the cost of them, cannot be considered as having any other duty to perform than to promote their settlement as rapidly as it can take place by a healthy process, and to meet the wishes of all who desire *bona fide* to occupy them. Considering the class of men likely to take the lead in settling a new country, one hundred dollars (the price of a half-quarter section) paid in cash to the government, is a tax too heavy, perhaps, for the privilege of taking up a farm in an unimproved wilderness. The price is already too low to oppose a serious obstacle to speculation: a considerable reduction of it would not, probably, increase that evil, while it would essentially relieve the *bona fide* settler. There would, in fact, perhaps, be little else to object to a plan of gratuitous donation of a half-quarter section to actual settlers, than the comparative injustice of such a plan towards those settlers who have already purchased their farms.

A novel and singular claim has been set up in some of the new states to the entire property of the public lands within their limits.

[1] *Ibid.*, pp. 163-168.

The nature of this work does not require an examination of this claim; to enforce which no attempt has as yet been practically made.

It ought to be observed, that five per cent on all the sales of public lands within the states severally is reserved; three-fifths of which are to be expended by congress, in making roads leading to the states; and two-fifths to be expended by the states in the encouragement of learning. The first part of this reservation has been expended on the Cumberland road; and the treasury of the United States is greatly in advance to that fund, on account of this public work.

The total number of acres belonging to the United States is 1,062,463,171.

But the mode of disposing of the public lands, *if their sale for the profit of the government be dispensed with*, may give rise to much difficulty, in seeking to reconcile the interests of the United States with those of each of the states of the union. On this important point, Mr. M'Lane, with his usual ability, thus observes:—

> "It must be admitted that the public lands were ceded by the states, or subsequently acquired by the United States, for the common benefit; and that each state has an interest in their proceeds of which it cannot be justly deprived. Over this part of the public property the powers of the general government have been uniformly supposed to have a peculiarly extensive scope, and have been construed to authorise their application to purposes of education and improvement to which other branches of revenue were not deemed applicable. It is not practicable to keep the public lands out of the market; and the present mode of disposing of them is not believed to be the most profitable, either to the general government or to the states; and must be expected, when the proceeds shall be no longer required for the public debt, to give rise to new and more serious objections.
>
> "Under these circumstances, it is submitted to the wisdom of congress to decide upon the propriety of disposing of all the public lands, in the aggregate, to those states, within whose territorial limits they lie, at a fair price, to be settled in such a manner as might be satisfactory to all. The aggregate price of the whole may then be apportioned among the several states of the union, according to such equitable ratio as may be consistent with the objects of the original cession; and the proportion of each may be paid or secured directly to the others by the respective states purchasing the land. All cause of difficulty with the general government, on this subject, would then be removed; and no doubt can be entertained, that, by means of stock issued by the buying states, bearing a moderate interest, and which, in consequence of the reimbursement of the public debt, would acquire a great value, they would be able at once to pay the amount upon advantageous terms. It may not be unreasonable also to

expect, that the obligation to pay the annual interest upon the stock thus created, would diminish the motive for selling the lands at prices calculated to impair the greater value of that kind of property.

"It is believed, moreover, that the interests of the several states would be better promoted by such a disposition of the public domain, than by sales in the mode hitherto adopted; and it would, at once, place at the disposal of all the states of the union, upon fair terms, a fund for the purposes of education and improvement, of inestimable benefit to the future prosperity of the nation." . . .

12.[1] Three classes of persons may wish to purchase lands in the United States: those who mean to employ others to cultivate them, those who will cultivate for themselves, and those who wish to place their money in them, with the prospect that these lands will increase in value, in proportion to the population.

Let us leave the two first classes to make their own choice. Your general observations, to be published on your return, will instruct such as wish to remove to America, how to go and choose for themselves.

The case of the simple speculators is different. Some wish to purchase, to sell again to a profit as soon as possible; others extend their views farther, and, calculating the vicissitudes of Europe, find it very prudent to place a dead fund in lands, which, by the effect of neighbouring population, will acquire a great value in the course of years.

Many heads of families, provident for their descendants, place dead funds in a bank, to accumulate, in favour of their children. A greater number would do the same thing, if there were a satisfactory solution of all questions in the Chapter of Accidents. Now, nothing appears to me better to answer this wise precaution, than to place such money on the cultivated soil of the United States.

The information that you will be able to give on this subject, will be very useful. There are lands which, from their position, must remain uncleared for a longer or shorter period; others rendered valuable by the neighbourhood of rivers and other important communications; others on account of their timber, &c. &c.

But, can lands be purchased with full surety? Are there any sure methods established to recognise territorial property, that may rest for some time without visible marks or bounds? Is there no risk of finding one's property in the possession of another, or of having purchased that of another?

The present is the epoch that will decide the Europeans, as to their confidence in the United States. I doubt not but the States in general

[1] Brissot de Warville, J. P., *New Travels in the United States of America Performed in 1788*, pp. 72-74. Dublin, 1792.

Editor's Note.—Brissot de Warville (1754-1793) was a French politician and author. His observations on American life and manners are rather conventional—but should be ranked among the really important contributions on the economic and social life of America written in the eighteenth century.

will sanction the constitution; and from that time every eye ought to look upon America as being in the road of unfailing prosperity. Then, without doubt, many Europeans will think of purchasing lands there. I know of no period when the spirit of speculation has been so general as at present; no period which presents a revolution like that of independent America; and no foundation so solid as that which they are about to establish. Thus, past events prove nothing against what I presume of the dispositions of men's minds relative to this business.

Part II

ECONOMIC EXPANSION: 1820 TO THE CIVIL WAR

CHAPTER VI

AGRICULTURE AND THE EXTRACTIVE INDUSTRIES: 1820 TO THE CIVIL WAR

THE output of the principal agricultural crops increased rapidly between 1820 and the Civil War and revolutionary changes in agricultural technique comparable in importance to those which were taking place in industry occurred, especially in the period from 1840 to 1860. The invention of successful mechanical contrivances—reapers, threshing-machines and cultivators—ushered in a period of large-scale farming. At the same time the extension of the canal and railway systems made possible the utilization of lands formerly too far removed from the market to make cultivation profitable. By 1860 Illinois, Indiana, and Wisconsin had become the principal wheat-producing states of the Union, wresting their position of preëminence from Pennsylvania, Ohio, and New York, the three states which until as late as 1850 had led in the raising of this crop. Not only did the Northwest assume leadership in the production of grain, but stock-raising and the meat-packing industry followed in the wake of the westward shift of corn production, Chicago claiming leadership in this industry by the time of the Civil War (Nos. 1-12).

The Public Land Policy: The early policy of the federal government with respect to the disposal of the public domain greatly encouraged the concentration of landholdings in the hands of relatively few enterprising cultivators and speculators. It was not until after 1820 that the government seriously attempted, through its land policy, to develop the vast stretches of idle lands in the West. To assist those who had taken up an abode in regions as yet unsurveyed, the government found it necessary to pass the preemption laws, which gave settlers a right to buy without competition the lands they had selected for their domicile, the purchase of such lands to be made on the same terms as those extended to settlers on the surveyed lands. In 1830 and in each subsequent year—until 1841—general preëmption laws were enacted; in the latter year a permanent law was passed (Nos. 13-16).

The increase in the output of the manufacturing industries was

accompanied by the exploitation on a large scale of the natural resources of the continent. Nearly every branch of industry required ever larger quantities of iron, and the demand for coal in the factories and in the operation of transportation facilities kept pace with the general acceleration of economic activity (Nos. 17-18).

While, relatively speaking, the fisheries had declined in importance in the first half of the nineteenth century, an absolute gain occurred from 1850-1860 (Nos. 19-20).

General Condition of Agriculture

1.[1] It were difficult, perhaps, to conceive man placed in a more enviable position than he is as a cultivator of the soil in these states. Agriculture here assumes her most cheerful aspect, and (some Europeans might smile doubtingly, but it is true) all her ancient classic dignity, as when Rome summoned her consuls from the plough. I have seen those who have raised their voice in the senate of their country, and whose hands have fought her battles, walking beside the team, and minutely directing every operation of husbandry, with the soil upon their garments, and their countenances bronzed by the meridian sun. And how proudly does such a man tread his paternal fields! his ample domains improving under his hand; his garners full to overflowing; his table replenished with guests, and with a numerous offspring, whose nerves are braced by exercise, and their minds invigorated by liberty. It was finely answered by an American citizen to a European who looking around him, exclaimed, "Yes; this is all well. You have all the vulgar and the substantial, but I look in vain for the *ornamental.* Where are your ruins and your poetry?" "*There are our ruins,*" replied the republican, pointing to a revolutionary soldier who was turning up the glebe; and then, extending his hand over the plain that stretched before them, smiling with luxuriant farms and little villas, peeping out from beds of trees, "*there is our poetry.*"

It is not always, indeed, that the farmer may aspire to affluence, as some of our more ignorant emigrants suppose. I have seen small proprietors in this country, whose life was one continued scene of unbroken toil, and whose exertions procured little more to themselves and their families, than common necessaries and indispensable comforts; these, however, they may always procure, and sometimes, by shifting the scene of their industry, may ensure more abundant returns. But here again there are often positive evils that must be placed in

[1] Wright, Frances, *Views of Society and Manners in America,* pp. 168-170, London, 1822.

Editor's Note.—Frances Wright was born in Scotland in 1795. It was after a trip to the United States in 1818-1820 that she published her *Views of Society and Manners in America.* In 1825 she returned to the United States, where she became well known as a lecturer and as an author.

the balance against positive good. The hardy citizen, who migrates from the more sterile districts of New England to the virgin lands of the West, has to encounter fatigues, and but too frequently unwholesome vapors, to which even his vigorous constitution may fall a sacrifice. It is wonderful to see how cheerfully these physical evils are braved, and often how well and speedily they are surmounted; but still, with many, a hard-earned competence with health will balance against the change of greater abundance, purchased by years of sickness, or perhaps by a broken constitution.

We should, however, but ill appreciate the causes which pour the tide of emigration from the east to the west, if we considered avarice as giving the sole impetus. It is not a mere calculation of dollars and cents, or a thousand bushels of corn placed against a hundred, which alone sways the mind of the adventurous settler.

2.[1] I know of nothing, my dear Sir, that is a subject for more real congratulation than the attention recently given to agriculture, and the spirit for improving it, that is pervading every district in the Union. It was indeed quite time for this disposition to show itself. The truth will be less painful now, since we have begun to amend; but certainly there was no country, where greater ignorance, or greater neglect of this science, could be witnessed, than in the United States. This was owing to different causes, in different parts of the country. In the south and the west, the proprietors held land enough to persist in bad management, for two or three generations; an exuberant soil produced abundant crops, without artificial enrichment or very heavy labour; when one field was exhausted, another was cleared, and tilled to poverty in its turn. This kind of farming so impoverished the country in some of the older districts, that the inhabitants were at length left to choose between emigration to a new region, or the employment of greater care and skill on their old farms: too many of them perhaps preferred the former. In this quarter a less fertile soil always demanded more labour; yet few attempts were made to go out of the common routine of a very restricted cultivation, and the inclination was almost universal, to devote all their skill and capital to some of the branches of trade; considering all exertions to derive a greater profit from agriculture, as hopeless. The spirit of emigration also, acting with full force on an enterprising people, easily induced them to go to new states, in pursuit of the real or delusive advantages that were held out to them. This constant draining from our population, while it afforded a hardy, vigorous race for the cultivation of new territories; may have produced a greater increase to the ultimate

[1] Tudor, William, *Letters on the Eastern States*, ed. 2, pp. 233-236. Boston, 1821.

EDITOR'S NOTE.—As the author of *Letters on the Eastern States* and *"Miscellanies"*—William Tudor (1779-1830) established a reputation as an accurate and painstaking chronicler. Tudor served as United States Consul at Lima, Peru, and as *chargé d'affaires* in Brazil. It was through his enterprise that the *North American Review* was established in 1814.

good and power of the nation, than would have happened if these emigrants had remained stationary; still it occasioned some local disadvantages. In the first place, it prevented the inhabitants from thinking of any improvement; if their farm was not sufficiently productive, the easy remedy to a restless people was to sell it, collect their effects and go five or fifteen hundred miles (the distance, greater or less, was not thought of) in pursuit of a richer soil. It was not by the employment of greater skill, but by a change of location, that they sought to improve their condition. Improvement was discouraged in another way, not by the high rate of wages, which this facility of obtaining new lands had a tendency to maintain; (high wages are a gain to the community at large;) but by keeping our population always scattered and thin, it prevented the means of bringing together, occasionally, a large body of labourers, which is sometimes very important for the security of crops in extended cultivation.

There are two things that have been injurious to the agriculture of the United States; one of which may be remedied in time; the other will always continue. The first, is the occupation of too much land, so that the labour applied to it can only produce a very imperfect tillage; the other, is the irregularity of the climate: this is every where felt; in the eastern states it is an untimely frost in June; in the southern it is the same accident in March, that injures the respective crops of these different territories; our geographical, and atmospherical position, if I may use the expression, will always subject us to these evils. But it is the consideration of these unfavourable circumstances, in this quarter only, that comes within my purpose. With regard to the land, there is hardly a farm where the quantity of ground in tillage, is not too much for the strength that is to be employed upon it; hence, not only the labour, but the manure are diffused over too large a surface.

The evil consequences are not only immediate, in giving a less amount of produce in each year, but a permanent gain is prevented. If the farmer, who now tills ten acres, were to confine his efforts to eight, his harvest would not only be equal the present year, but the prospective value of his farm would be enhanced. A more complete tilth and a heavier stock of manure upon the diminished space, would leave it, after the crop was taken, more mellow and in better heart. If two farmers were selected, who should possess about the same degree of industry, skill, and means for labour, and who should proceed in their cultivation on lands of the same quality, one of them stirring more surface than the other; I have no hesitation in believing, that he who cultivated one-fifth or one quarter less in quantity, would, besides having an equal harvest annually, find at the end of ten years, that his farm was worth double that of his competitor. The evil in question is so radical and extensive, that its bad consequences cannot be too often pointed out: though it is the most obvious, and has been most frequently remarked upon, it is still almost universal.

3.[1] The facilities every where afforded to our citizens for engaging in trade, and the great profits that for a considerable period accrued from it; fostered a general inclination to place all their means in this pursuit, rather than in agriculture; of late years at least this has been a very unprofitable course to many. The attention of intelligent and enterprising men, was thus diverted from their farms to other concerns; no attempts were made at improvement; no man thought of wasting his skill upon agriculture. Very little attention was paid to the breed of cattle or horses; the making of butter and cheese was miserably neglected, since it was found that, however bad it might be, a market would be procured for it. The routine of cultivation at least, preserved the primitive simplicity of our puritan forefathers. A field of Indian corn, with a border of potatoes, a few fields of the small grains, turned at intervals into grass lands, formed the whole system; and the only part of this that was performed with neatness and care, was the cultivation of Indian corn. This commonly received two or three ploughings and hoeings, was kept free from weeds; and this plant filled the only fields, that were an exception to the general neglect and ignorance of agriculture. No root crops were thought of for the sustenance of animals: indeed, with the exception of working oxen, if the others were kept from starving through the winter, the farmer was satisfied, and each year was made to balance its own accounts. In a plentiful one, all that was raised was consumed; and if a little waste was necessary to effect this purpose, it was readily resorted to. The abundance of one season was not calculated upon to supply the deficiencies of the next: if there was a large crop of corn, the oxen, pigs, and turkeys were somewhat fatter; and if there was any hay left through the winter, it was considered a nuisance; old hay being held to be poor stuff. It would have been difficult to find ten farmers in a county, who ever looked forward to blend the operations of two or three years together. In an unfavourable season they exerted themselves to make the two ends meet, by keeping their stock alive; but the bounty of a prosperous one was thrown away, except that the cattle fared better, and therefore yielded something more to the owner. That this was the general state of our agriculture, and that too much of it still continues the same, no one who knows it can deny. The only exceptions are the farmers who raised roots in some places for exportation, and the market gardeners in the vicinity of one or two large towns.

Even the attempts that were made at improvement, were cited as evidence against the possibility of deriving any thing from farming. An experimentalist, having surrounded his fields with expensive fences, erected spacious, showy barns, planted orchards, and when once planted, considered that work as done; would cultivate his farm without much economy of labour, but a sparing use of manures, especially

[1] *Ibid.*, pp. 237-241.

those of a permanent nature; and finding his whole produce to consist of a few tons of hay, a few bushels of corn and potatoes, would assure you, from his own knowledge, which he had paid dearly for, that it was impossible to derive any thing from farming. So a few years since, when a sudden mania took possession of the public about the merino sheep; and a man thought he had nothing to do but to buy a flock of merinos, give a hundred dollars a piece for them, and send them to a farm, under the charge of a man who knew nothing about their management, aided, however, by his neighbours's dogs; the result was cited with a significant look, or a knowing remark, as showing the folly of attempting to derive any thing from farming in this country.

Among the advantages which the farmer possesses, the first may be considered, his exemption from rent, tithes and burthensome taxes. The land is subjected to no species of feudal imposition; the common tenure is in fee simple, and there is no rent, unless the interest of the purchase money, which is small, can be so considered. There are no tithes;—religion and education are, to be sure, supported every where, —but at a very moderate expense, since nothing can be exacted by luxury; and each individual pays his contribution to what sect he chooses. There are no burdensome taxes: those which would be most so, the militia, and highway labours, are lightened by being paid in personal service, at the most convenient seasons;—and intelligent and free people, who voluntarily impose these duties upon themselves, know that they are essential, the one to the common good, and the other to the preservation of their rights. The wages of labour are, indeed, high;—what goes in Europe to the exactions of the government, is here retained by the labourer, whose strength is sustained by plentiful nourishment, and who is enabled to lay up something from his earnings.

The next advantage is, that he supplies the dearest market in the world, with great facilities for getting to it. There being no check, no limit whatever, to exportation, the prices of the main articles of food are regulated here, not by the wants and supplies of the country, but by the general wants of the world. The commerce in grain being wholly unrestricted, a bad season in Europe is a premium to the farmer here; and the fact has been, that we have always paid a higher price for bread than has been paid in Europe. This main article of food regulates all the rest. But another instance may be cited, which proves how advantageous a market our farmers possess for their produce;— I believe it will be found, on examination, that the price of hay has been as high in Boston, and elsewhere in proportion, for a series of years, as it has been in London.

4.[1] The agricultural products of the States may be compared in

[1] Tucker, George, *Progress of the United States in Population and Wealth in Fifty Years, as Exhibited by the Decennial Census,* pp. 196-198. New York, 1843.

Editor's Note.—George Tucker (1775-1861) is probably best known as a philosopher. He at one time served in the House of Representatives, later becoming Professor of Moral Philosophy and Political Economy in the University of Virginia.

various ways. 1st. As to the proportion which they bear to the agricultural products of the whole Union. 2d. As to the proportion which this branch of their industry bears to the other branches. 3rd. As to the average value to each inhabitant. 4th. As to the average value for each one of its territory. 5th. As to the quantities produced.

. . . nearly one-third of the agricultural products of the Union are furnished by the Middle States, one-ninth by the New England States, and from about a fifth to a sixth by each of the other three divisions. Thus, four-fifths of the products of the Southern and Southwestern States are agricultural, two-thirds of those of the Northwestern States, more than half of those of the Middle States, and but two-fifths of those of the New England States; that the value of this class of products to each inhabitant is the greatest in the Southwestern States, and the lowest in the Northwestern.

But the greatest diversity is in the average value per acre of their agricultural products, which is principally owing to the great difference among the States in the proportion of their uncultivated lands. Thus:[1]

	Agricultural products.	Area in acres.	Value per acre.
New England States,....	$74,749,889	42,336,000	$1 76
Middle States,.....	213,628,160	75,168,000	1 84
Southern States,[2].....	139,083,614	133,996,800	1 03
Southwestern States,.....	110,789,390	156,851,200	70
Northwestern States,[3]....	112,964,907	191,904,000	58

The last point of comparison is in the quantities annually produced; and we should make a very false estimate of the agricultural wealth of the different States, if we were to confine our attention to the money value of their several products, and not to regard the quantities produced. A large part of the products of every State are consumed where they are produced; and as to this portion, the greater the cheapness of the products of a State, the greater is its wealth. If the same labour and capital would produce twice as much grain in the Western States as in the Atlantic States, it is obvious that either one-half the labour and capital required in the latter may be saved in the Western States, and diverted to other sources of profit, or that those States may have twice as much as the Atlantic States for consumption. And as to the surplus sent abroad to be exchanged for other products, though the price be but half that in the Atlantic States, yet, if twice the quantity is produced at the same expense, the value produced in both places will be the same. The advantage of the superior fertility of

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He was the author of many books. His writings on economic subjects include *The Theory of Money and Banks Investigated* and *Banks or No Banks*. His observations are usually accurate.

[1] These statistics are based on the figures of the 1840 Census.—Ed.

[2] The Territory of Florida not included.

[3] The Territories of Wisconsin and Iowa not included.

the Western States is not as great as we have supposed, for the purpose of illustration, but it is probably sufficiently great to bring the profits of their agriculture upon a level with those of the Atlantic States.

Of the wheat, Indian corn, and other grain used for bread, and potatoes, the quantities produced by the different great divisions of the States, and the proportion to each inhabitant, are as follows:

Geographical Divisions.	Population.	Bushels of grain, exclusive of oats.	Propor. to each pers.	Bushels of potatoes.	Propor. to each pers
New England States,	2,234,822	12,506,000	5½	35,181,000	15¾
Middle States,.....	5,118,076	89,952,000	17½	42,969,000	8⅓
Southern States,....	3,279,006	111,080,000	33⅓	9,710,000	3
Southwestern States,	2,245,602	95,982,000	42¾	6,862,000	3
Northwestern States,	4,057,313	179,620,000	43½	12,615,000	3

It thus appears, that the proportion of grain to each inhabitant in the Western States is eight times as great as it is in New England, and two and a half times as great as it is in the Middle States. If we add the proportion of potatoes to that of the grain, and suppose four bushels of the former equal to one of the latter, then the difference between the Western States and New England will be as 5 to 1, and between the former and the Middle States as 2¼ to 1.

5.[1] No other single feature of American farm values has advanced so rapidly as has the value of live stock. The growth of farms and farm property is given herewith in a statistical statement of the number of farms, their acreage, value, value of implements, and of live stock. The figures cover four decades, from 1850 to 1890, the census figures for 1900 not being available for the entire country.

FORTY YEARS' PROGRESS IN FARMS AND FARM VALUES

	1850.	1860.	1870.	1880.	1890.
Farms.....number..	1,449,073	2,044,077	2,659,985	4,008,907	4,564,641
Farms.....acres..	293,560,614	407,212,538	407,735,041	536,081,835	623,218,619
Farms.....value..	$3,271,575,426	$6,645,045,007	$9,262,803,861	$10,197,096,776	$13,279,252,649
Farm implements....do..	$151,587,638	$246,118,141	$336,878,429	$406,520,055	$494,247,467
Live stock.....do..	$544,185,516	$1,089,329,915	$1,525,276,457	$1,500,464,609	$2,208,767,573

6.[2] "The progress of improvement in agriculture, though gradual, is yet steady. The importance of this branch of industry is beginning to be more and more appreciated. The whole country is more or less interested in it, as it furnishes, besides what is consumed at home, at least three-fourths of all the exports of the United States.—The vast

[1] Final Report of the Industrial Commission, vol. xix, p. 45. Washington, Government Printing Office, 1902.

[2] MacGregor, John, *Commercial Statistics of America,* pp. 410-11. London, 1847. This section is quoted by MacGregor from a report (1843) by Henry L. Ellsworth, Commissioner of Patents. See note p. 143.

public domain of unsold lands, too, will be affected by this progress, and its value proportionably advanced. It may be well here to mention some of the principal sources of this improvement.

"*Causes of Improvement.*—The geological surveys ordered and in progress, or recently completed, in many of the states, besides the other important benefits thereby conferred on those states, have contributed much to advance the science of husbandry.

"These, in connexion with the experiments of agricultural chemistry, by thus directing the attention to their analysis, are developing the nature of the soils and their adaptation and means of increased production, by different seeds, products, and methods of cultivation and manures, and so enable the farmer or planter to use the varieties of his land to the best advantage.

"The increasing number of agricultural periodicals and treatises, and their cheap and more extensive circulation throughout the land, are also producing a happy effect. The farmers and planters in the various sections of our country are thus brought acquainted with each other's operations and success, and also with the methods of cultivation and rearing of stock, &c., common in England and on the continent, new products and the result of their trial are noticed, and the knowledge of many useful discoveries thus extended. The prejudice against 'book farming,' as it has been termed, which has so long proved a barrier to the adoption of valuable improvements thus suggested, is gradually wearing away; and a happy combination of science and practical skill is thus secured, the results of which are every year becoming more and more apparent.

"Agricultural societies also exercise great influence in furthering the progress of agricultural industry. These are but of comparatively recent date, and their institutions and increase in number and prosperity serve to mark the progress of improvement in agriculture; and if still further aided by an efficient board of agriculture, like what exists in Great Britain, they would no doubt be yet more successful. It is only about fifty years since that board was there established, and it has proved of extensive benefit to that active empire. By means of these societies, great numbers of the agriculturists of our country are brought together, to compare notes, as it were, to observe each other's success, and to converse on the topics connected with this branch of industry. They examine the machines, implements, animals, and products, offered for exhibition, and are induced to bestow more care and labour in the selection of their seeds and stock, in the preparation of the soil, and in their tillage and harvesting.—Every year new and valuable improvements are thus made known and introduced, by which many are essentially benefited. Premiums also encourage to effort, and a highly salutary incentive is furnished, in the honour to be acquired of successful and approved farming. A similar effect, too, results from the bounties given by the different states to encourage the culture of some particular product. These have never been offered without a new

impulse being stirred, and leading to increased attention to the pursuit. Some of the states in these respects are far in advance of others, but almost all are beginning more to appreciate their true interest, and seeking to extend their true prosperity.

"While adverting to the causes of general improvement in the agriculture of our country, it may not also be improper to allude to the increased habits of temperance and sobriety of the labourer, by which the condition of the farm-house and farm is so essentially benefited, and domestic happiness and effective strength promoted. A clear head and a vigorous frame, in combination, will ever be most successful in tillage, as in every branch of industry. The lengthening of life and the repair of health, thus secured, render many who have been but drones and mere consumers, also active and efficient producers, as well as healthful consumers. The amount added, too, in the increased skill, as well as the saving from less breakage of tools, machinery of labour, and the actual effectiveness of such labourers as have heretofore been drawn from the intemperate class, now reformed, constitute no small item of gain in this view of the subject. No little damage has been thus sustained in the 'inebriate' management and cultivation of the land, which is now avoided. Were this the proper place, some most interesting deductions might be made as to the physical force and efficiency thus added to the various branches of industry, and the bearing of the whole on agriculture, as a source of our national wealth."

7.[1] It appears from the returns of the last census, that the ratio of increase of the principal agricultural products of the United States has more than kept pace with the increase of population. Indeed, there appears no reason to doubt the continuance of an abundant supply of all the great staple articles, equal to the necessities of any possible increase of population or national contingency for ages to come. It is also gratifying to note the evidences of improvement in some of the most important agricultural operations, proving that our farmers are fully in sympathy with the progressive spirit of the age, and not behind their fellow-citizens engaged in other industrial occupations. The products of the great west are giving a tone to the markets of Great Britain and the continent. Chicago has become one of the first grain markets in the world, and as the boundless region still further west is being developed, every channel of communication with the Atlantic coast will teem with the products of the soil. Illinois alone sends now to the great market at New York an average of two thousand head of cattle weekly, and other States, comprising regions almost unknown at the former census, and still more distant from the seaboard, are adding and increasing their contributions.

New plants and animals have been introduced in the past decade. From the products of the sugar cane—*sorghum saccharatum*—transplanted from the Chinese empire, the west is furnished with a new

[1] *Preliminary Report on The Eighth Census,* 1860, pp. 80-91. Washington, 1862.

article of domestic luxury and utility, and rendered comparatively independent of the sugar cane of more southern States.

The great dairy interest in our country during this period has increased the production of cheese and butter, and already American cheese is as well known in English markets as the best English dairy cheese.

Indian corn is now an indispensable article for Great Britain, and each succeeding year is increasing the demand for this important product of our country, which is raised in every State and Territory of our Union.

While it is admitted that very much remains to be accomplished by the agricultural interest of our country, it cannot be doubted that the past ten years [have] shown to the world that the United States has within its own territory the resources which will enable us to compete with the older nations of the world in every department of domestic industry.

The London exhibition in 1851 made known that the United States had the means of supplying the implements and machinery needed in every country in Europe. Since that time our reapers and mowers, ploughs, steam-engines, and railroad cars have found their way to the Old World, and an American in taking the tour of the continent will, in the great empire of Russia, find himself on board of an American railroad car drawn by an American locomotive on a railroad built by an American engineer. We point to these advances as evidence that the enterprise of our countrymen, with so wide a scope for its development at home, manifests itself wherever a profitable field opens for its exercise abroad.

At a period like the present, when, for the preservation of the national life and character, the resources of the country are subjected to a greater strain than they have ever yet borne, when a large portion of its effective labor is diverted to the same sacred duty, and all the productive forces of the Union are controlled to an unprecedented extent by causes more pervading and subversive in their effects than any which could possibly arise from extraneous sources, it is a subject of the highest gratification that we are blessed with the amplest returns from the labors of the husbandman. The crops of hay and grain, as the result of a favorable season and a broader cultivation of land, are believed especially to have afforded abundant and timely harvests. Regarded either as a source of cheap and ample supply for a vast commissariat with the least possible drain upon the public chest, of cheap and plenary subsistence to the numerous unemployed and dependent classes, or as a source of exports and employment for the commercial and shipping interests, the bounty of our land is at the present time a subject of national congratulation and thankfulness.

The increasing annual products of agriculture in our highly-favored country, and the hay and grain crops in particular, furnish striking illustrations of the close interdependence and connexion of all branches

of the national industry. The dependence of agriculture upon the results of mechanical skill, as well as the astonishing progress of the latter within the last half century, is strongly exemplified in the application of labor-saving appliances, which become still more valuable, in emergencies like the present, in all the operations of the farm. The saving effected by new and improved implements in Great Britain within a dozen years preceding 1851 was stated by a competent authority to be not less than one-half on all the main branches of farm labor. Our own progress in this respect is believed to have been more rapid than that of any other agricultural people, and to be in advance of our application of the fruits of purely scientific research in the improvement of agriculture. In nearly every department of rural industry mechanical power has wrought a revolution. The inventive genius of the country has not only contrived to make it prepare the crop for market and to sew or knit the family apparel of the farmer, but to rock and "tend" the infant as well as to rend from the embrace of earth the century-rooted oak which our fathers were forced to leave to the slow eradication of time. Whether the superior agricultural advantages and the demand for improved implements and machinery in the United States have stimulated the facile ingenuity of our mechanics, or have only been seconded by its ready contributions to industry, we shall not stop to inquire. The greatest triumphs of mechanical skill in its application to agriculture are witnessed in the instruments adapted to the tillage, harvesting, and subsequent handling of the immense grain crops of the country, and particularly upon the western prairies. Without the improvements in ploughs and other implements of tillage which have been multiplied to an incredible extent, and are now apparently about to culminate in the steam plough, the vast wheat and corn crops of those fertile plains could not probably be raised. But were it possible to produce wheat upon the scale that it is now raised, much of the profit and not a little of the product would be lost were the farmer compelled to wait upon the slow process of the sickle, the cradle, and the hand-rake for securing it when ripe. The reaping machine, the harvester, the machines for threshing, winnowing, and cleaning his wheat for the market have become quite indispensable to every large grain grower. The commercial importance of the wheat crop and its various relations to the subject of domestic and foreign supply, to markets, the means of transportation, storage, &c., make it highly important that the producer shall have the means of putting his crop in the market at the earliest or most favorable time and with the greatest precision.

Wheat.—The quantity of wheat grown in all the States and Territories in the year 1849 was 100,485,944 bushels. The quantity grown in 1859 was 171,183,381 bushels, an increase of nearly seventy per centum, or about double the increase of population in the same period. Some of the older wheat-growing States—Pennsylvania, Virginia, New York, and Ohio—do not show a proportionate increase, owing to the

destructive agency of the wheat midge, and the consequent unwillingness of farmers to subject themselves to repeated losses from this cause. Fortunately, the midge is diminishing where it was formerly most destructive, and wheat-growing will soon be resumed in many localities in these States where for a time it was almost abandoned. To the introduction and greatly extended cultivation of spring wheat in the northwestern States, is the country mainly indebted for the increase in the amount of wheat produced. In Illinois this crop has increased in ten years from 9,414,577 bushels to 24,159,500 bushels; in Wisconsin, from 4,286,131 to 15,812,625 bushels in the same period. In many cases in these States the quantity grown has exceeded the means of ready transportation, or the demands of the market, and has therefore been too great to be profitable.

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Indian corn.—This crop in 1849 was 592,071,104 bushels; in 1859 it was 830,451,707 bushels, which is an increase of more than forty per cent. In a majority of the States this is undoubtedly the most popular crop; it is less liable to failure than any other, and is applied to so great a variety of useful purposes. No important changes have been made either in the varieties cultivated or in the modes of cultivation, except in the gradual substitution of animal for human labor.

Cotton.—The rapidity with which the cultivation of cotton has increased in the United States is truly wonderful. In the beginning of the present century the annual exportation was less than 5,000 bales; in 1849 the quantity grown had reached 2,445,793 bales of ginned cotton of 400 pounds each; in 1859 it had further increased to 5,196,944 bales, or more than 110 per cent. in ten years. The whole crop is the product of thirteen States, but is chiefly obtained from eight of them. Immense as is the quantity of cotton produced, the demand is equal to the supply. Prior to the production of cotton in such vast quantities in the more southern States, it was extensively cultivated for domestic purposes in North Carolina, Virginia, Maryland, Delaware, and southern Illinois, and it is not improbable that its cultivation may be re-established in some of these States with profit to the producer and advantage to the consumer.

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Sheep and wool.—The number of sheep returned by the census of 1850 was 21,723,220, and the amount of wool 52,516,959 pounds. In 1860 the number of sheep returned was 23,317,756, and the amount of wool 60,511,343 pounds.

In addition to the number of sheep above mentioned as returned by the census, the assistant marshals reported 1,505,810 as their estimate of the number of sheep not included because owned by others than farmers, so that the entire number of sheep in the United States on the 1st day of June may safely be placed at 62,017,153, and a propor-

tionate amount may be added with propriety to the clip of wool for the same period.

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The aggregate exports of domestic wool during the whole of the same period only reached the value of $1,562,502; and there were no exports of domestic manufactures of wool.

The average price of fine wool in one of our principal wool markets, (Boston), for the last thirty-five years has been 50 3/10 cents per pound; of medium, 42 8/10 cents; of coarse, 35½ cents. The consumption of mutton has rapidly increased. The supply now as rarely exceeds the demand as with any other meat, and the best qualities outsell beef in our markets.

No country is better adapted by natural, and on the whole, by artificial conditions to the production of wool than the United States. It appears to be conceded that Australia and South America contain the only very extensive regions of the earth now capable of competing with equal areas of our country in this production. That narrow rim of vegetation which encloses the vast inland deserts of Australia presents not a circumstance of superiority, for this object, over the immense natural pastures of our western and southwestern States and Territories, and it is manifestly inferior to them in important conditions. Portions of it are destitute of running streams for hundreds of miles, and it is subject to the periodical recurrence of droughts, which in some cases have extended through years, drying up all minor vegetation, and proving most destructive to flocks and herds. The government price of lands is higher than in the United States. Its distance from its wool market equals nearly half the circumference of the globe. Yet its exports of wool rose between 1810 and 1850 from 167 pounds to 40,000,000 pounds! South America is also becoming an extensive producer and exporter of this staple. Here, too, no natural conditions of superiority over those of the United States present themselves, while there are political and moral ones which undeniably are hostile to the security and permanence of so exposed a branch of industry.

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Sugar and molasses.—Notwithstanding the large quantities of sugar and molasses produced in the United States, a large amount is obtained from abroad. The sum paid for imported sugars, in 1859, exceeded $31,000,000, and in the same season 30,000,000 gallons of molasses were imported.

The rapidly increasing culture of the Chinese sugar-cane is supplying a great want. The introduction of such a crop to the notice of the American farmer is a prominent feature of the past decade. While, in the present state of knowledge, much difficulty and uncertainty seems to attend the manufacture of sugar from this plant, it has proved its value as very productive in sirup or molasses. The plants

introduced into this country are from Asia and Africa, and vary considerably in character. They are liable to hybridization with each other, and with the broom corn, and much care is required to preserve the varieties distinct. So far as we have information, Mr. J. H. Smith, of Quincy, Illinois, has been the most successful cultivator of this imphee, and his efforts have been attended with much success. While, with our knowledge of the disappointments which have been experienced in Europe and this country as to results, we would not recommend a heedless expenditure of time and means in the culture of the imphee, we are sufficiently confident in its value, under many circumstances, as to hope that farmers generally of the north and west will devote some attention to the culture of the plant, and fairly test its utility for the production of sugar.

The product of cane sugar, as returned by the Seventh Census, was 237,133 hogsheads of 1,000 pounds each; in 1859 it was 302,205 hogsheads. The product of molasses for the former year was 12,700,-991 gallons; for the latter 16,337,080 gallons. From the sorghum and imphee, 7,235,025 gallons of molasses were made in 1859.

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Tobacco.—The tobacco crop, in 1849, amounted to 199,752,655 pounds, being a decrease of more than 19,000,000 pounds according to the previous census; in 1859 it reached 429,390,771 pounds.

To the production of this amount every State and Territory contributed, although Virginia and Kentucky furnished much more than any other. It would seem surprising that a crop which is said to impoverish the soil more than any other, and to injure to some extent every one who uses it, should be found so desirable as to increase 106 per cent. in ten years; but such is the effect of a ready market with remunerative prices. Several of the northern States present a very large increase in the production of this article. Among these, Ohio, New York, Connecticut, Massachusetts, and Pennsylvania exhibit both the largest product and the greatest increase. Ohio raised, in 1859, over 25½ million pounds, and New York increased her production from 83,189 pounds to 5,764,582 pounds; Massachusetts from 138,-246 to 3,233,198, and Connecticut from 1,267,624 to 6,000,133 pounds. Virginia, North Carolina, Maryland, Kentucky, and other of the more southern States show a greatly augmented growth of the staple.

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Improvements.—No better evidence of the progressive improvement of American agriculture need be adduced than the great amount of animal forces employed to assist the labor of man. The number of horses, mules, and oxen engaged in agricultural labor is probably greater than the number of men, a proportion that has no parallel in any other country. All of this animal force is, of course, made available through some form of machinery. Since the preceding census

the use of the reaper and mower has become not merely general but almost universal. Some of the most important crops are now seeded, cultivated, gathered, and prepared for use or market with little or no labor from man except where he is aided by mechanical appliances and animal force. The employment of steam in agricultural operations is much less common in the United States than in Great Britain, but is gradually increasing.

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Progress of invention in threshing instruments.—As next in point of importance to the production of grain consists the facility for its early and economical preparation for market, the value of implements and machinery tending to this end cannot be overestimated; and as the progress whereby perfection is attained in any improvement so valuable as that which has, through a long process of years, attended the construction of threshing implements, is interesting to the political economist as well as the farmer and statesman, we have endeavored to group together all the essential facts connected with their history. The plough, hay and grain cutters, and some other implements of husbandry, have attained to such perfection within a short period, and their history is so generally known to the present generation, that special allusion to them may with propriety be deferred to a future period.

It appears that the number of patents granted in the United States for threshing-machines, exclusive of a considerable number for threshing clover, and those combining threshing apparatus with cider or grist mills, straw-cutters, &c., was *three hundred and fifty-four*—a larger number than had been given for any other instrument or process, except the plough and the water-wheel.

Some kind of mechanical means for separating grain from the ear appears to have been early contrived. A complete history of the successive changes in the means and instruments for effecting this would be a curious and interesting chapter in the record of the world's progress. Such a retrospect, could it be made, would show a remarkable uniformity in the methods adopted throughout the world in ancient and modern times. It would show that, until within a recent period, mankind has been altogether unsuccessful in originating or transmitting any essential improvement upon the most ancient plan of which we have any record.

8.[1] In no one department does American agriculture appear to such advantage as in respect to its implements and machines for facilitating or economizing labor. Since the establishment of the Patent Office, up to 1855, there have been granted for grain and grass harvesters, 111

[1] Wells, David A., *The Year-Book of Agriculture* (*1855-1856*), pp. 10-12. Philadelphia, 1856.

Editor's Note.—David A. Wells's (1826-1898) claim to being one of America's foremost economists of the last century is probably undisputed. Wells was an able advocate of free trade and wrote extensively on the subject of the tariff.

patents; for plows, 372; for straw-cutters, 153; for smut machines, 140; for winnowers, 163; and for thrashing machines, 378. It must be also remembered that, for every patent granted, at least two applications have been refused. With the exception of stoves, more patents have been issued for agricultural machines and implements than for any other class of inventions. The great improvement in American agricultural implements has, however, been comparatively recent; and thirty years have not elapsed since "a stalwart man could shoulder and carry to his work every item employed to aid or reduce manual labor, except the carts and an unwieldy, bungling barrow."

At the trial of agricultural machines exhibited at the Great Paris Exhibition, the *competition* for reapers, mowers, and thrashers was, in reality, confined to the American inventions, although some English and French machines were on the ground. The results of the French Exhibition, in common with that of the great English one, place our reaping and mowing machines, by general acknowledgment, far in advance of all others. The advantages of these machines during the past season, with our superabundant crops, have been very marked; and they are to be found, not merely in the saving of grain and the cost of labor, but in the fact of the prompt harvesting of every field as it successively ripens, without hurrying on the operation before the grain is matured, lest unfavorable weather or the scantiness of help, should oblige the postponement of the cutting till much of the grain is loosened from the ear and wasted in the field.

At the trial of thrashing machines at the Paris Exhibition, the best machine exhibited, was Pitt's American Thrasher. In the competition six men were set to thrashing with flails at the same moment that the different machines commenced operations, and the following were the results of half an hour's work:—

Six thrashers with flails	60	litres	of	wheat.
Pitt's American Thrasher	740	"	"	"
Clayton's English Thrasher	410	"	"	"
Dunoir's French Thrasher	250	"	"	"
Pinet's Belgian Thrasher	150	"	"	"

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The whole number of reaping and mowing machines estimated to have been sold in the United States during the past season is upwards of fifteen thousand, possessing a value of $2,000,000.

The following conclusion of a report on reaping and mowing machines, presented by one of the county societies of Massachusetts, contains some suggestions relative to the introduction of machinery worthy of notice: "Substitute," it says, "machinery for human muscles as far as possible. Save the expenditure of exhausting labor and hot sweat whenever you can. 'In the doctrine of eternal hard work, your committee do not believe!' It has come almost to this: we must cultivate our fields by machinery, or not at all. Help is scarce and

high, and, what is worse, is good for little or nothing when we get it. Irish help is next door to no help at all. The chief problem is not how much they cost, but how much they *waste!* Hence, if we must have them, (and who has any other?) let us have as little as we can. As fast as may be, let us introduce horse-rakes, and corn-planters, and mowing machines to our farms, or hold them as neighborhood property. Let us domesticate among our farming tools a horse-power, a circular saw, a thrashing machine, and so on; and thus diminish the necessity for hand-help, instead of importing muscles from Ireland by the shipload. If Irishmen will come and demand their dollar a day and board, and codfish on Fridays, let them pass along to those who can afford to pay them and put up with their heedless waste. In a word, let us do what almost every manufacturer has long since been obliged to do to make his business profitable, and even to save himself from being crushed by his own machinery; that is, avail ourselves of all the helps which science and modern improvement suggest for our aid."

9.[1] The progress of agriculture in the United States has always been made in spite of the scarcity of farm labor, so that the invention and use of agricultural implements has been a necessity of the conditions through which the country passed from its very beginning. The effect of the civil war was to withdraw an unusually large number of people from the cultivation of the farms. The impetus given to manufactures and to transportation by this struggle, together with the influence of high prices upon production, all tended to draw upon the farm for the purpose of supplying the militant as well as the peaceful enterprises of the nation. This gave new inducement to the invention and manufacture of agricultural implements. The Commissioner of Patents of that period states that "notwithstanding half a million of our agriculturists have been withdrawn from the farm to engage in military service, still the number of applications for patents on agricultural implements, including reapers, beehives, horse hayforks and horse hayrakes, has increased from 350 in 1861 to 502 in 1863."

At the London exhibition of 1851 the general excellence of American plows, reapers, churns, scythes, axes, forks, and other implements was acknowledged by the admission of the judges from all parts of the world. The triumph of American reapers marked a new era in European agriculture. It was estimated by the census of 1860 that the average value of farm implements and machinery for each farm of 100 acres was $150. In New England the value of machinery employed averaged $1.34 per acre of improved lands, while in the Middle States it was $2.07 per acre, in the Western States, $1.56, and in the Southern States $1.48 per acre. This in general was the condition of the country with regard to agricultural machinery at the period when the lands of the East had deteriorated in fertility

[1] *Final Report of the Industrial Commission,* vol. xix, pp. 157-158. Washington, Government Printing Office, 1902.

and the virgin plains of the West were just beginning their phenomenal yields of grain. The East had neither the capital nor the system of culture to meet competition from the West with its new machinery. The chief causes why the East failed to meet the competition of the Western lands was to be found (1) in the exhaustion of the land; (2) in the absence of surplus capital with which to experiment, in order to inaugurate a more intensive system of culture, and (3) in the superior implemental equipment of the Western grain producer. Moreover, the state of agricultural knowledge was deficient in adaptability to change.

Characteristics of Southern Agriculture

10.[1] The principal products of the southern states are tobacco, cotton, rice, and sugar. The first of these is grown largely in Virginia and other of the middle and southern states, and together with the other staples of that portion of the country, is chiefly the product of slave labor. There are at present but two sorts of tobacco raised in the western states: the one with a long and sharp-pointed leaf,—and the other with a round and hairy leaf, which is evidently the best tobacco. The seed is sown in beds well prepared for the purpose, so that in May it is fit to be transplanted. The plants are then put into another piece of ground, at intervals of from three to four feet; they are carefully freed from weeds, and the earth is drawn up to their stems. When they have obtained a certain growth, the tops are taken off, that the remaining leaves may acquire a proper size; worms are carefully removed, and no sucker is allowed to remain. In August, the plants become spotted, and appear of a brownish color; by these tokens they are discerned to be ripe, and are therefore immediately pulled. They lie one night to sweat; next day, they are hung up to dry; when the tobacco has become sufficiently dry to ensure its preservation, it is stripped from the stalks, and barrelled up for exportation; or manufactured into various shapes, for those whom a species of luxury has taught to look upon it as almost one of the necessaries of life. Along with six thousand plants, yielding generally one thousand pounds of tobacco, one person may manage four acres of Indian corn.

There are four kinds of tobacco reared in Virginia, namely, the *sweetscented*, which is the best; the *big* and *little*, which follow next; then the *Frederick;* and lastly, the *one* and *all*, the largest of all, and producing most in point of quantity. The Virginian tobacco is reckoned superior to any raised in the southern states; and great care is taken by the regulations of the state, that no frauds be practised upon the merchants, and that no inferior tobacco be palmed upon the purchaser. For this purpose, houses of inspection are established in every district where tobacco is cultivated, whose regulations are rigorously enforced; this contributes, as much as the real superiority of the article

[1] Mellen, Grenville, ed. *A Book of the United States,* pp. 347-350. Hartford, 1839. See note p. 34.

itself, to keep up its price in the market. Every person who intends his tobacco for exportation, packs it up in hogsheads, and thus sends it to one of the inspecting houses. Here the tobacco is taken from the cask, which is opened for the purpose; it is examined in every direction, and in every part, in order to ascertain its quality and its purity; if any defect is perceived, it is rejected and declared to be unfit for exportation. If no defect appear, it is pronounced to be exportable. It is then repacked in the hogshead, which is branded with a hot iron, marking the place of inspection, and the quality of the contents; and then lodged in the inspecting storehouses, there to await the disposal of the planter, who receives a certificate of the particulars, serving at the same time as an acknowledgment of the deposit. It is by selling this *tobacco note* to the merchant that the planter sells his tobacco. The purchaser, on viewing this note, is as well acquainted with the article, as if he had inspected it himself; and he has only to send the note and transfer to the store where the tobacco lies, and it is immediately delivered out, agreeably to his orders. This measure has insured a preference in the foreign market to the Virginian tobacco, and prevents the deterioration of the article.

The soil most proper for the cultivation of cotton is found in the islands lying on the coast. Those belonging to the state of Georgia produce the best, known in France by the name of *Georgia cotton*, and in Great Britain by the name of *Sea Island cotton*. This variety of cotton has a deep black seed, and very fine, long wool, which is easily separated from the seed by the roller gins, which do not injure the staple. In the middle and upper country, the green seed or inferior cotton is produced; this kind is less silky, and adheres so tenaciously to the seed, that it cannot be separated without the action of a saw-gin. Though the wool of the green seed, or *bowed* Georgia cotton, be cheaper than the other, yet its produce is more luxuriant. An acre, which will produce one hundred and fifty pounds of black seed cotton, will generally yield two hundred pounds of the green seed kind. The packing of the cotton is done in large canvass bags, which must be wetted as the cotton is put in, that it may not hang to the cloth, and may slide better down. The bag is suspended between two trees, posts, or beams; and a negro, with his feet, stamps it down. These bags are generally made to contain from three hundred and fifty pounds, to four hundred pounds each.

"I have been lately favored," says Mr. Everett, in his valuable address before the New York Institute, in October, 1831, "with a minute statement of the average product of five or six cotton plantations in two of the southwestern states, ascertained by putting together the income of a good and bad year. The result of this statement is, that the capital invested in these plantations yields from fifteen to twenty per cent. clear; and the net profit accruing to the proprietor, for the labor of each efficient hand, is two hundred and thirty-seven dollars and fifty cents per annum; being a clear gain of four dollars

and fifty cents per week. It further appears that on one of these plantations, (and the same, though not stated, is believed to hold of the others in due proportion,) worth altogether, for land, labor, and stock, ninety-two thousand dollars, the entire amount of articles paying duty annually consumed, is two thousand three hundred dollars. The average crop of this plantation, taking a good and bad year, is fourteen thousand five hundred dollars. Suppose the duties to be thirty-three and one third per cent. and the whole amount of the duty to be actually assessed, in the shape of an enhanced price of the article, (the contrary of which is known to be true, for in several articles the entire price is little more than the duty,) it would amount to less than seven hundred and thirty dollars per annum on a clear profit of fourteen thousand five hundred dollars."

Rice is extensively cultivated in the southern states. The grains of this plant grow on little fruit stalks springing from the main stalk. It is sown in rows, in the bottom of trenches, made entirely by slave labor. These ridges lie about seventeen inches apart, from centre to centre. The rice is put in by the hand, generally by women, and is cast so as to fall in a line. This is done about the seventeenth of March. By means of flood-gates, the water is then permitted to flow over the fields, and to remain on the ground five days, at the depth of several inches. The object of this is to sprout the seeds, as it is technically called. The water is next drawn off, and the ground allowed to dry, till the rice is between three and four inches in height. This requires about a month. The fields are then again overflowed, and are allowed to remain in that state about a fortnight, to destroy the weeds. It is now about the middle of May, and for two months afterwards the ground is permitted to continue dry; during this interval it is repeatedly hoed, and the soil is kept loose and free. The fields are then once more submerged, in order that the crops may be ripened, and they actually do ripen while standing in the water. The harvest commences in August, and extends into October. The plants are then cut by the male slaves, and tied into bundles by the females. The grains are threshed out by means of hand flails. The outer husk is detached by passing the rice between a pair of millstones. The film which still envelopes the grain is removed by trituration under heavy pestles, consisting of upright bars, shod with iron, which are raised several feet by machinery, and then allowed to fall upon the rice, the particles of which are thus rubbed against each other, till the film is removed. When thus thoroughly winnowed, it is packed in casks holding about six hundred pounds each, and is ready for exportation.

The sugar cane is cultivated to a great extent in Louisiana, Georgia, and West Florida. In the first of these states, five kinds of the cane have been raised. The first is the Creole cane, which is supposed to have come originally from Africa. The second is the Bourbon cane, from Otaheite. Besides these, are the riband cane, green and red;

the riband cane, green and yellow; and the violet cane of Brazil. The latter species was abandoned soon after its introduction, as it proved less productive in our climate than any of the others. The other species are the best suited to the nature of the soil. They are all more or less affected by the variations of the atmosphere, are very sensible to cold, and are killed in part by the frost every year. Experience has demonstrated that the cane may be cultivated in a latitude much colder than was generally supposed; for fine crops are now made in Louisiana, in places where a few years ago the cane froze before it was ripe enough to make sugar.

In the process of cultivation, the ground is ploughed as deep as possible, and harrowed; after it has been thus broken up, parallel drills or furrows are ploughed at the distance of two feet and a half to four feet from one another; in these the cane is laid lengthwise, and covered about an inch with a hoe. Small canals to drain off the water are commonly dug, more or less distant from each other, and these are crossed by smaller drains, so as to form squares like a chess board. These ditches are necessary to drain off the water from rains, as well as that which filters from the rivers, which would otherwise remain upon the plantations. The average quantity of sugar that may be produced upon an acre of land of the proper quality, well cultivated, is from eight hundred to one thousand pounds, provided that the cane has not been damaged, either by storms of wind, inundations, or frost. The strong soil is easiest of cultivation, and most productive, in rainy seasons. The light soils require less labor, and yield more revenue, in dry seasons. To these variations, others are to be added, resulting from the different exposure of the lands, the greater or less facility of draining, and also from the greater or less quantity of a weed known by the name of coco or grass nut. Sixty working hands are necessary to cultivate two hundred and forty acres of cane, planted in well-prepared land, and to do all the work necessary until the sugar is made and delivered. The sugar, up to the moment it is delivered to the merchant, costs the sugar planter about three and a half cents per pound, for expense incurred, without reckoning the interest on his capital.

11.[1] It is scarcely possible to foresee, with distinctness, the destination of the southern States, east of the Alleghanies, when the curse of slavery shall be removed. Up to that period, continual deterioration is unavoidable. Efforts are being made to compensate for the decline of agriculture by pushing the interests of commerce. This is well;

[1] Martineau, Harriet, *Society in America,* vol. i, pp. 299-305. New York, 1837.

EDITOR'S NOTE.—Harriet Martineau (1802–1876) wrote extensively in the field of history, economics, and philosophy. As a result of her experiences in America in 1834-36 she wrote *Society in America* (3 vols. 1837) and a *Retrospect of Western Travel* (3 vols.), which were widely read both in the United States and in England. Miss Martineau's writings, although not always accurate, are distinctly valuable contribtions to the economic literature of the period.

for the opening of every new rail-road, of every new pier, is another blow given to slavery. The agriculture of Virginia continues to decline; and her revenue is chiefly derived from the rearing of slaves as stock for the southern market. In the north and west parts of this State, where there is more farming than planting, it has long been found that slavery is ruinous; and when I passed through, in the summer of 1835, I saw scarcely any but whites, for some hundreds of miles along the road, except where a slave trader was carrying down to the south the remains that he had bought up. Unless some new resource is introduced, Virginia will be almost impoverished when the traffic in slaves comes to an end; which, I have a strong persuasion, will be the case before very long. The Virginians themselves are, it seems, aware of their case. I saw a factory at Richmond, worked by black labour, which was found, to the surprise of those who tried the experiment, to be of very good quality.

The shores of the south, low and shoaly, are unfavourable to foreign commerce. The want of a sufficiency of good harbours will probably impel the inhabitants of the southern States to renew their agricultural pursuits, and merely confine themselves to internal commerce. The depression of agriculture is only temporary, I believe. It began from slavery, and is aggravated by the opening of the rich virgin soils of the south-west. But the time will come when improved methods of tillage, with the advantage of free labour, will renew the prosperity of Virginia, and North and South Carolina.

No mismanagement short of employing slaves will account for the deterioration of the agricultural wealth of these states. When the traveller observes the quality of some of the land now under cultivation, he wonders how other estates could have been rendered so unprofitable as they are. The rich Congaree bottoms, in South Carolina, look inexhaustible; but some estates, once as fine, now lie barren and deserted. I went over a plantation, near Columbia, South Carolina, where there were four thousand acres within one fence, each acre worth fifteen hundred dollars. This land has been cropped yearly with cotton since 1794, and is now becoming less productive; but it is still very fine. The cotton seed is occasionally returned to the soil; and this is the only means of renovation used. Four hundred negroes work this estate. We saw the field trenched, ready for sowing. The sowing is done by hand, thick, and afterwards thinned. I saw the cotton elsewhere, growing like twigs. I saw also some in pod. There are three or four pickings of pods in a season; of which the first gathering is the best. Each estate has its cotton press. In the gin, the seed is separated from the cotton; and the latter is pressed and packed for sale.

There seems nothing to prevent the continuance or renovation of the growth of this product, under more favourable circumstances. Whether the rice swamps will have to be given up, or whether they may be tilled by free black labour, remains to be seen. The Chinese

grow rice; and so do the Italians, without the advantage of free black labour. If, in the worst case, the rice swamps should have to be relinquished, the loss would be more than compensated by the improvement which would take place in the farming districts; land too high for planting. The western, mountainous parts of these States would thus become the most valuable.

It was amusing to hear the praises of corn (Indian corn) in the midst of the richest cotton, rice, and tobacco districts. The Indian looks with silent wonder upon the settler, who becomes visibly a capitalist in nine months, on the same spot where the red man has remained equally poor, all his life. In February, both are alike bare of all but land, and a few utensils. By the end of the next November, the white settler has his harvest of corn; more valuable to him than gold and silver. It will procure him many things which they could not. A man who has corn, may have everything. He can sow his land with it; and, for the rest, everything eats corn, from slave to chick. Yet, in the midst of so much praise of corn, I found that it cost a dollar a bushel; that every one was complaining of the expenses of living; that, so far from mutton being despised, as we have been told, it was much desired, but not to be had; and that milk was a great rarity. Two of us, in travelling, asked for a draught of milk. We had each a very small tumbler-full, and were charged a quarter-dollar. The cultivation of land is as exclusively for exportable products, as in the West Indies, in the worst days of their slavery; when food, and even bricks for building, were imported from England. The total absence of wise rural economy, under the present system, opens great hope of future improvement. The forsaken plantations are not so exhausted of their resources as it is supposed, from their producing little cotton, that they must be. The deserted fields may yet be seen, some day, again fruitful in cotton, with corn-fields, pasturage, and stock, (not human,) flourishing in appropriate spots.

Adversity is the best teacher of economy here, as elsewhere. In the first flush of prosperity, when a proprietor sits down on a rich virgin soil, and the price of cotton is rising, he buys bacon and corn for his negroes, and other provisions for his family, and devotes every rod of his land to cotton-growing. I knew of one in Alabama, who, like his neighbours, paid for his land and the maintenance of his slaves with the first crop, and had a large sum over, wherewith to buy more slaves and more land. He paid eight thousand dollars for his land, and all the expenses of the establishment, and had, at the end of the season, eleven thousand dollars in the bank. It was thought, by a wise friend of this gentleman's, that it was a great injury, instead of benefit to his fortune, that his labourers were not free. To use this wise man's expression, "it takes two white men to make a black man work"; and he was confident that it was not necessary, on any pretence whatever, to have a single slave in Alabama. Where all the other elements of prosperity exist, as they do in that rich new State,

any quality and amount of labour might be obtained, and the permanent prosperity of the country might be secured. If matters go on as they are, Alabama will in time follow the course of the south-eastern States, and find her production of cotton declining; and she will have to learn a wiser husbandry by vicissitude. But matters will not go on as they are to that point. Cotton-growing is advancing rapidly in other parts of the world where there is the advantage of cheap, free labour; and the southern States of America will find themselves unable to withstand the competition of rivals whom they now despise, but by the use of free labour, and of the improved management which will accompany it. There is already a great importation of mules for field work from the higher western States. Who knows but that in time there may be cattle-shows, (like those of the more prosperous rural districts of the north,) where there are now slave markets; or at least agricultural societies, whereby the inhabitants may be put in the way of obtaining tender "sheep's meat," while cotton may be grown more plentifully than even at present?

I saw at Charleston the first great overt act of improvement that I am aware of in South Carolina. One step has been taken upwards; and when I saw it, I could only wish that the slaves in the neighbourhood could see, as clearly as a stranger could, the good it portended to them. It is nothing more than that an enterprising gentleman has set up a rice-mill, and that he avails himself to the utmost of its capabilities; but this is made much of in that land of small improvement; as it ought to be. The chaff is used to enrich the soil; and the proprietor has made lot after lot of bad land very profitable for sale with it, and is thus growing rapidly rich. The sweet flour, which lies between the husk and the grain, is used for fattening cattle. The broken rice is sold cheap; and the rest finds a good market. There are nine persons employed in the mill, some white and some black; and many more are busy in preparing the lots of land, and in building on them. Clusters of houses have risen up around the mill.

Alabama, Mississippi, and Louisiana, present the extreme case of the fertility of the soil, the prosperity of proprietors, and the woes of slaves. I found the Virginians spoke with sorrow and contempt of the treatment of slaves in North and South Carolina: South Carolina and Georgia, of the treatment of slaves in the richer States to the west: and, in these last, I found the case too bad to admit of aggravation. It was in these last that the most heart-rending disclosures were made to me by the ladies, heads of families, of the state of society, and of their own intolerable sufferings in it. As I went further north again, I found an improvement. There was less wealth in the hands of individuals, a better economy, more intelligent slaves, and more discussion how to get rid of slavery. Tennessee is, in some sort, naturally divided on the question. The eastern part of the State is hilly, and fit for farming; for which slave labour does not answer. The western part is used for cotton-planting; and the planters will not

yet hear of free labour. The magnificent State of Kentucky has no other drawback to its prosperity than slavery; and its inhabitants are so far convinced of this that they will, no doubt, soon free themselves from it. They cannot look across the river, and witness the prosperity of Illinois, Indiana, and Ohio, without being aware that, with their own unequalled natural advantages, they could not be so backward as they are, from any other cause.

Kentucky is equally adapted for agriculture and commerce. She may have ports on the rivers, along her whole northern and western boundary; and she has already roads superior to almost any in the United States. She is rich in stone, and many other minerals; in mineral waters, and in a soil of unsurpassed fertility. The State is more thickly settled than is evident to the passing traveller; and the effect will appear when more markets, or roads to existing markets, are opened. In one small county which I visited, my host and his brother had farms of fifteen hundred acres each; and there were two hundred and fifty other farms in the county. Sometimes these farms are divided among the children. More commonly, all the sons but one go elsewhere to settle. In this case, the homestead is usually left to the youngest son, who is supposed likely to be the most attached to the surviving parent.

12.[1] The great error of southern agriculture is the general practice of exhausting culture—the almost universal deterioration of the productive power of the soil—which power is the main and essential foundation of all agricultural wealth. The merchant or manufacturer, who was using (without replacing) any part of his capital to swell his early income—or the shipowner, who used as profit all his receipts from freights, allowing nothing for repairs or deterioration of capital —would be accounted by all as in the sure road to bankruptcy. The joint-stock company that should (in good faith, as many have done by designed fraud) annually pay out something of what ought to be its reserved fund, or of its actual capital, to add so much to the dividends, would soon reach the point of being obliged to reduce the dividends below the original fair rate, and, in enough time, all the capital would be so absorbed. Yet this unprofitable procedure, which would be deemed the most marvelous folly in regard to any other kind of capital invested, is precisely that which is still generally pursued by the cultivators of the soil in all the cotton-producing states, and which prevailed as generally, and much longer in my own country, and which, even now, is more usual there than the opposite course of fertilizing culture. The recuperative powers of nature are indeed continually operating, and to great effect, to repair the waste of fertility caused by the destructive industry of man, and but for this natural and imperfect remedy, all these southern states (and most of the northern likewise) would be already barren deserts, in which agri-

[1] *De Bow's Review,* vol. xiv, no. 1, January, 1853, p. 34.

cultural labors would be hopeless of reward, and civilized men could not exist.

Let me not be understood as extending censure to all southern agriculture, and charging this great defect as being universal. It is truly very general—but there are numerous exceptions, of which it is not my purpose to treat. My present business is with errors and defects of southern agriculture, and with its points of admitted excellence—as, for example, the elaborate system of rice culture, and, for other tillage, the very general and commendable attention paid to the collection of materials for putrescent manures. Nothing has appeared to me more remarkable in the agriculture of this region than the close neighborhood, (often, indeed, seen on the same property,) of the best husbandry in some respects, and almost the worst in most others.

The great error of exhausting the fertility of the soil is not peculiar to cotton culture, or to the southern states. It belongs, from necessity, to the agriculture of every newly-settled country, and especially where the land, before being brought under tillage, was in the forest state. When first settled upon, forest land costs almost nothing, and labor is scarce and dear. Even if labor is more abundant, it still will be long before enough land can be cleared to allow changes of culture and rest to the fields; and for some years after each new clearing, it would be even beneficial to continue the tillage of corn, tobacco, or cotton, so as effectually to kill all remains of the forest growth. But as soon as enough land can be brought under culture, and has been put in clean condition, so as to allow space for change of crops and due respite from continual tillage, the previous exhausting course will no longer be best even for early profit. Even in a new country, while land is yet fertile, it is cheaper to preserve that fertility from any exhaustion, than it is to reduce it considerably. And in an older agricultural country, like South Carolina, having abundant resources in marl and lime for improving fertility, it would be much cheaper, and more profitable, to improve an acre of before exhausted land, than it is to clear and bring under culture an acre of ordinary land from the forest state, allowing that both pieces are to be brought to the same power and rate of production.

Public Lands and the Federal Land Policy

13.[1] The pride and delight of Americans is in their quantity of land. I do not remember meeting with one to whom it had occurred that they had too much. Among the many complaints of the minority, this was never one. I saw a gentleman strike his fist on the table in an agony at the country being so "confoundedly prosperous:" I heard lamentations over the spirit of speculation; the migration of young men to the back country; the fluctuating state of society from

[1] Martineau, Harriet, *Society in America,* vol. i, pp. 291-297. New York, 1837.
See note p. 174.

the incessant movement westwards; the immigration of labourers from Europe; and the ignorance of the sparse population. All these grievances I heard perpetually complained of; but in the same breath I was told in triumph of the rapid sales of land; of the glorious additions which had been made by the acquisition of Louisiana and Florida, and of the probable gain of Texas. Land was spoken of as the unfailing resource against over manufacture; the great wealth of the nation; the grand security of every man in it.

On this head, the two political parties seem to be more agreed than on any other. The federalists are the great patrons of commerce; but they are as proud of the national lands as the broadest of the democrats. The democrats, however, may be regarded as the patrons of agriculture, out of the slave States. There seems to be a natural relation between the independence of property and occupation enjoyed by the agriculturist, and his watchfulness over State Rights and the political importance of individuals. The simplicity of country life, too, appears more congenial with the workings of democratic institutions, than the complex arrangements of commerce and manufactures.

The possession of land is the aim of all action, generally speaking, and the cure for all social evils, among men in the United States. If a man is disappointed in politics or love, he goes and buys land. If he disgraces himself, he betakes himself to a lot in the west. If the demand for any article of manufacture slackens, the operatives drop into the unsettled lands. If a citizen's neighbours rise above him in the towns, he betakes himself where he can be monarch of all he surveys. An artisan works, that he may die on land of his own. He is frugal, that he may enable his son to be a landowner. Farmers' daughters go into factories that they may clear off the mortgage from their fathers' farms; that they may be independent landowners again. All this is natural enough in a country colonised from an old one, where land is so restricted in quantity as to be apparently the same thing as wealth. It is natural enough in a young republic, where independence is of the highest political value. It is natural enough in a country where political economy has never been taught by its only effectual propounder—social adversity. And, finally, it falls out well for the old world, in prospect of the time when the new world must be its granary.

The democratic party are fond of saying that the United States are intended to be an agricultural country. It seems to me that they are intended to be everything. The Niagara basin, the Mississippi valley, and the South, will be able to furnish the trading world with agricultural products for ever,—for aught we can see. But it is clear that there are other parts of the country which must have recourse to manufactures and commerce.

The first settlers in New England got land, and thought themselves rich. Their descendants have gone on to do the same; and they now

find themselves poor. With the exception of some Southerners, ruined by slavery, who cannot live within their incomes, I met with no class in the United States so anxious about the means of living as the farmers of New England. In the seventeenth century, curious purchases of land were made, and the fathers were wealthy. In those days, a certain farmer Dexter bought the promontory of Nahant, which stretches out into Massachusetts Bay, of Black Willey, an Indian chief, for a suit of clothes; the part of the promontory called Great Nahant measuring a mile and a half in circuit. Others, who held land in similar or larger quantities, divided it equally among their children, whose portions had not been subdivided below the point of comfort, when the great west on the one hand, and the commerce of the seas on the other, opened new resources. From this time, the consolidation of estates has gone on, nearly as fast as the previous division. The members of a family dispose of their portions of land to one, and go to seek better fortunes elsewhere than the rocky soil of New England can afford. Still, while the population of Massachusetts is scarcely above half that of London, its number of landowners is greater than that of all England.

The Massachusetts farmers were the first to decline; but now the comparative adversity of agriculture has extended even into Vermont. A few years ago, lenders of money into Vermont received thirty per cent. interest from farmers: now they are glad to get six per cent.; and this does not arise from the farmers having saved capital of their own. They have but little property besides their land. Their daughters, and even their sons, resort to domestic service in Boston for a living. Boston used to be supplied from Vermont with fowls, butter, and eggs: but the supply has nearly ceased. This is partly owing to an increased attention to the growth of wool for the manufacturers; but partly also to the decrease of capital and enterprise among the farmers.

In Massachusetts the farmers have so little property besides their land, that they are obliged to mortgage when they want to settle a son or daughter, or make up for a deficient crop. The great Insurance Company at Boston is the formidable creditor to many. This Company will not wait a day for the interest. If it is not ready, loss or ruin ensues. Many circumstances are now unfavourable to the old-fashioned Massachusetts farmer. Domestic manufactures, which used to employ the daughters, are no longer worth while, in the presence of the factories. The young men, who should be the daughters' husbands, go off to the west. The idea of domestic service is not liked. There is an expensive family at home, without sufficient employment; and they may be considered poor. These are evils which may be shaken off any day. I speak of them, not as demanding much compassion, but as indicating a change in the state of affairs; and especially that New England is designed to be a manufacturing and

commercial region. It is already common to see agriculture joined with other employments. The farmers of the coast are, naturally, fishermen also. They bring home fish, manure their land with the offal; sow their seed, and go out again to fish while it is growing. Shoemaking is now joined with farming. In the long winter evenings, all the farmers' families around Lynn are busy shoemaking; and in the spring, they turn out into the fields again. The largest proportion of factory girls too is furnished by country families.

The traveller may see, by merely passing through the country, without asking information, how far New England ought to be an agricultural country, if the object of its society be to secure the comfort of its members, rather than the continuance of old customs. The valleys, like that of the Connecticut river, whose soil is kept rich by annual inundations, and whose fields have no fences, gladden the eye of the observer. So it is with particular spots elsewhere, where, it may be remarked, the fences are of the ordinary, slovenly kind, and too much care does not seem to have been bestowed on the arrangements and economy of the estate. Elsewhere, may be seen stony fields, plots of the greenest pasture, with grey rocks standing up in the midst, and barberry bushes sprinkled all about: trim orchards, and fences on which a great deal of spare time must have been bestowed. Instead of the ugly, hasty snake-fence, there is a neatly built wall, composed of the stones which had strewed the fields: sometimes the neatest fence of all; a wall of stones and sods, regularly laid, with a single rail along the top: sometimes a singular fence, which would be perfect, but for the expense of labour required; roots of trees, washed from the soil, and turned side upwards, presenting a complete chevaux-de-frise, needing no mending, and lasting the "for ever" of this world. About these farm-houses, a profusion of mignonette may be seen; and in the season, the rich major convolvulus, or scarlet runners, climbing up to the higher windows. The dove-cotes are well looked to. There has evidently been time and thought for everything. This is all very pretty to look at,—even bewitching to those who do not see beneath the surface, nor know that hearts may be aching within doors about perilous mortgages, and the fate of single daughters; but, it being known that such worldly anxieties do exist, it is not difficult to perceive that these are the places in which they abide.

There is, of course, a knowledge of the difficulty on the spot; but not always a clear view of coming events, which include a remedy. The commonest way of venting any painful sensibility on the subject, is declamation against luxury; or rather, against the desire for it in those who are supposed unable to afford it. This will do no good. If the Pilgrim Fathers themselves had had luxury before their eyes, they would have desired to have it; and they would have been right. Luxury is, in itself, a great good. Luxury is *delicious fare*,—of any and every kind: and He who bestowed it meant all men to have it.

The evil of luxury is in its restriction; in its being made a cause of separation between men, and a means of encroachment by some on the rights of others. Frugality is a virtue only when it is required by justice and charity. Luxury is vicious only when it is obtained by injustice, and carried on into intemperance. It is a bad thing that a Massachusetts farmer should mortgage his farm, in order that his wife and daughters may dress like the ladies of Boston; but the evil is not in the dress; it is rather in his clinging to a mode of life which does not enable him to pay his debts. The women desire dress, not only because it is becoming, but because they revolt from sinking, even outwardly, into a lower station of life than they once held: and this is more than harmless; it is honourable. What they have to do is to make up their minds to be consistent. They must either go down with their farm, for love of it, and the ways which belong to it: or they must make a better living in some other manner. They cannot have the old farm and its ways, and luxury too. Nobody has a right to decide for them which they ought to choose; and declaiming against luxury will therefore do no good. It is, however, pretty clear which they will choose, while luxury and manufactures are growing before their eyes; and, in that case, declaiming against luxury can do little but harm: it will only destroy sympathy between the declaimers and those who may find the cap fit.

One benevolent lady strongly desires and advises that manufactures should be put down; and the increased population all sent away somewhere, that New England may be as primitive and sparsely peopled as in days when it was, as she supposes, more virtuous than now. Whenever she can make out what virtue is, so as to prove that New England was ever more virtuous than now, her plans may find hearers; but not till then. I mention these things merely to show how confirmed is the tendency of New England to manufactures, in preference to agriculture.

14.[1] There is always a great quantity of land on sale in the United States, belonging to the government, at the fixed price of one dollar and a half per acre. Formerly it was sold on credit, at two dollars per acre; one-fourth to be paid at the time of contracting for it, and the remainder in equal annual instalments, at the end of one, two, three, four, and the last in five years. Within the last and previous year, in consequence of flour and other articles having sold so low, farmers who had purchased land, and cultivated a part, under an idea that the sale of the product would enable them to fulfil their engagements with the government, have been disappointed. Land speculators also have been unable to procure purchasers; and the government has been obliged to take back many thousand acres of land, for which farmers and speculators had contracted. At present, land can be purchased at less than the government price, although that appears

[1] Holmes, Isaac, An Account of the *United States of America*, pp. 148-152. London, 1823.

so trifling. Some having purchased, who are now unable to pay their instalments, would gladly dispose of a part, in order that they may be able to retain the remainder. Others have bought land, and settled upon it; but not finding agricultural pursuits to answer their expectations, they would willingly sell it for less than they have contracted to pay. The foregoing remarks apply to the back settlements, and chiefly to the Western Country.

There are, likewise, sales of land constantly taking place for the state taxes; but the purchaser must take the risk of the former owner re-paying the amount of the purchase with 10 per cent. interest. If he should do so within two years after the sale by the state government, he can obtain the restoration; if not, the title is gone to the purchaser at such sale. In many instances, very valuable tracts of land have been obtained in this manner for a mere trifle.

During, and after the revolution, there were many of what are termed Squatters; that is, persons who took possession of land without any right or title: others having discovered this circumstance, and purchasing the right from the real owners, who perhaps did not know they possessed the property, have thus obtained very valuable tracts of land for a tenth of its worth. When the American revolution broke out, many English families returned to Great Britain; and supposing their land of little or no value, they never concerned themselves about it. But in the course of time, considerable tracts became valuable from being situated near an increasing town, and also, perhaps, from the labour of squatters, who had taken possession and cleared it. Under these circumstances, persons have bought the right or title from the descendants of the British, and have acquired a valuable property.

With respect to the price of land, it is difficult to say what that is, in a country so extensive and diversified as the United States. For the land in the possession of government, the price is fixed; but for what private individuals possess, the price depends upon various incidents. The contiguity to a market; and whether there are good and never-failing streams through the land; and, if not near a large town, whether it is close to a navigable stream; and whether it is a good soil,—are circumstances that have considerable influence. At a convenient distance from some of the large cities, well-timbered land sells at from 60 to 100 dollars per acre: cleared land, from 40 to 60 dollars per acre. I am now speaking of all the states but the southern ones.

In the Southern States, where cotton and rice are produced, the price of land, or plantations, fluctuates with the price of the article. In these states, plantations may be purchased to produce 15 per cent. interest to the purchaser, if well managed. The same may be said of sugar plantations; these may be purchased to pay 25 per cent. interest, near New Orleans. The mode of disposing of these plantations is, by requiring an immediate payment of about one-fourth of the price contracted for, and the remainder to be paid in equal annual instal-

ments, at one, two, three, or four years, the seller having a mortgage on the property and stock, until the whole amount is paid. In some instances, persons have purchased plantations on these terms, and have cleared a sum equal to the amount of the purchase, long before the last instalment was due. The slaves, buildings, stock, every thing on the plantation, is sold together with the land.

In the old-settled states of New York, Pennsylvania, &c. uncleared land, in good situations, in the interior of the state, is sold at from 5 to 15 dollars per acre. A farm of about 320 acres, with from 150 to 170 acres of land tolerably well cleared, having a comfortable farm-house, with barns, orchard, &c. being in a situation not far from some navigable stream, in the interior of these old states, could be purchased at from 20 to 35 dollars per acre. In the state of Ohio, a similar farm could be bought for little more than half that sum. In the state of Indiana or Illinois, and places where there are but few settlers, the value of land or farms decreases considerably. In large cities and towns, the price of land depends upon the situation; but it is fully as high as it would be in a large town of Great Britain.

Thus, in New York, Philadelphia, Boston, or Baltimore, the value of building lots is fully as high as it is in Liverpool, Glasgow, &c.; but if we travel about a mile from an American city, the value rapidly decreases; when at two miles, it would not sell for one-quarter as much as land would produce situated within the same distance of a large town in Great Britain. With the Americans, it is not usual to erect villas adjacent to their cities; near to the city of Baltimore, however, there are several.

The rapid increase of the value of landed property has never been so much observed any where as in the United States. In 1681, Penn, with about 2000 Europeans formed a settlement in Pennsylvania. He was indebted to one of his servants about 45£. for which he offered him a quantity of land in Philadelphia: that land is now worth above a million sterling. In 1761, a Mr. Farley purchased 33,000 acres of land in North Carolina, for which he paid one thousand guineas; and in the year 1772, he refused an offer of 28,000£. sterling, for the same land. In 1784, some military lots in the State of New York, of 320 acres of land, were sold, the whole for ten dollars: at the present period, the same could be disposed of at more than two thousand dollars. In 1787, the State of New York, sold at public auction, many thousand acres of land on the Susquehannah river, below Chenango, which fetched about 4½ d. English, the acre: it is now worth from 5 to 10 dollars per acre, uncleared. Dr. Flin says, he knew many instances, where persons have bought one hundred acres of land for 10£. which they afterwards sold, without any improvement, for 3£. sterling an acre. In 1806, in the parish of Rapides, State of Louisiana, land was purchased at half a dollar an acre, which has since been sold, 800 acres in a lot, at twenty-eight dollars an acre.

The Pre-emption Acts

15.[1] The first enactment relating to pre-emption was the act of March 3, 1801, giving a right of "pre-emption" to certain persons who had contracted with John Cleves Symmes, or his associates, for lands lying between the Miami rivers, in the Territory of the United States, northwest of the Ohio River. These persons were living upon the lands once within the Symmes tract, but were not included in the patent for the reduced area, which he finally obtained.

This pre-emption or preference right thus first established was a step toward abolishing the sale of unoffered land, and giving a settler the first right or preference as against a person desiring to purchase and hold for investment or speculation.

The essential conditions of a pre-emption are actual entry upon, residence in a dwelling, and improvement and cultivation of a tract of land. The several pre-emption acts give a preference to the settlers.

Pre-emption is a premium in favor of and condition for making permanent settlement and a home. It is a preference for actual tilling and residing upon a piece of land. The original act was followed through the period from 1801 to 1841—forty years—by sixteen acts; the most important being the act of 1830. Under the act of April 5, 1832, the Secretary of the Treasury, in 1834, ordered the subdivision of 80-acre tracts into 40-acre lots—quarter-quarter sections—and the minimum subdivision for sale or entry was a 40-acre parcel at $1.25 per acre.

. . . . . .

June 1, 1840, and the more complete act of September 4, 1841, gave a preference right only where the settlement was made subsequent to survey, which were amended and improved by acts of March 5, 1843, March 3, 1853, March 27, 1854. The two latter acts modified this rule as to settlement, so as to permit pre-emptions to extend to unsurveyed lands in California, Oregon, Minnesota, Kansas, Nebraska, and New Mexico. The act of May 30, 1862, and sundry bills for relief of settlers passed at different dates, extended the time of payment on account of drought, plague from grasshoppers, &c. That act of March 3, 1873, authorized joint entries, and the act of March 3, 1879, prescribed the manner of making "final proof."

By the act of March 3, 1853, preference rights attached to alternate even-numbered sections along the lines of railroads where settled upon and improved prior to final allotment of the granted sections, and to lands once covered by French, Spanish, or other grants declared invalid by the Supreme Court of the United States.

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[1] Donaldson, Thomas C., *The Public Domain.* 46 Congress, 3 Session., House of Representatives, Ex. Doc. 47, part 4, pp. 214-215.

Editor's Note.—Thomas C. Donaldson (1843-1898) held various public offices. In addition to his writings on the Public Domain he was the author of *Experiences in Idaho Territory.*

By act of March 27, 1854, persons were secured in lands withheld for railroads where their settlements were made prior to the withdrawal from market.

The municipal town-site law of 1844, and the pre-emption provisions in the graduation act of 1854, gave way, the former to the town property and coal-land legislation of 1864 and 1865, the latter to the homestead statutes of 1862, 1864, 1866, the law of 30th May, 1862, intervening in regard to pre-emption and other important interests.

16.[1] The pre-emption system arose from the necessities of settlers, and through a series of more than 57 years of experience in attempts to sell or otherwise dispose of the public lands. The early idea of sales for revenue was abandoned, and a plan of disposition for homes was substituted. The pre-emption system was the result of law, experience, Executive orders, departmental rulings, and judicial construction. It has been many-phased, and was applied by special acts to special localities, with peculiar or additional features, but it has always and to this day contains the germ of actual settlement, under which thousands of homes have been made and lands made productive, yielding a profit in crops to the farmer and increasing the resources of the Nation. The necessity of protecting actual settlers on the public domain and giving a preference right to persons desiring to make homes thereon became more apparent in the years from 1830 to 1840. The receipts of the government from cash land sales, during that period, were $81,913,017.83; in the years 1835 and 1836 being, respectively $15,999,804.14 and $25,167,833.06. The largest yearly receipts before or since, and representing about 32,800,000 of acres (approximating the area of the present State of Alabama, and more than the area of Ohio or Indiana), were as follows:

In 1837	$6,770,036.52
In 1838	3,081,939.47
In 1839	7,076,447.35
In 1840	3,242,285.58
In 1841	1,363,090.04

The number of entries thereunder, acreage, and locations cannot be given in detail, because the system of the General Land Office carries them into "cash entries." Entries under the pre-emption act as to acres therein and cash receipts therefor are embraced in the annual cash receipts for sales of lands.

The Extractive Industries—1860

17.[2] With the subject of iron and its various manufactures that of FOSSIL FUEL naturally associates itself. The unequalled wealth and rapid development of the coal fields of the United States as a dynamic

[1] *Ibid.*, pp. 215-216.

[2] *Preliminary Report on the Eighth Census*, 1869, p. 63. Washington, 1862.

element in our industrial progress affords one of the most striking evidences of our recent advance. The product of all the coal mines of the United States, in 1850, was valued at $7,173,750. The annual value of the anthracite and bituminous coal, according to the Eighth Census [1860], was *over nineteen millions* of dollars. The increase was over twelve millions of dollars, and was at the rate of 169.9 per cent. on the product of 1850. It was chiefly produced in Pennsylvania, Ohio, and Virginia. The coal mined in Pennsylvania, in 1850, was valued at $5,268,351. In the year ending June 1, 1860, the State produced 9,397,332 tons of anthracite, worth $11,869,574, and of bituminous coal, 66,994,295 bushels, valued at $2,833,859, making a total value of $14,703,433, or an excess of $7,529,683 over the total product of the Union in 1850. Of bituminous coal, Ohio raised 28,-339,900 bushels, the value of which was $1,539,713; and Virginia, 9,542,627 bushels, worth $690,188. The increase in Ohio was $819,-587, and in Virginia, $222,780, in the value of mineral fuel, being at the rate of 113 per cent. in the former, and 47.6 per cent. in the latter. The increase in Pennsylvania was 179 per centum on the yield of 1850.

The development of our several valuable mines of coal, iron, lead, copper, zinc, gold, silver, quicksilver, chrome, &c., is a subject of the highest satisfaction, constituting, as they do, the repository and fountainhead of crude materials for an immense and varied industry in the metallurgic and chemical arts. Mining in its several branches employs a very large amount of capital and great numbers of our laborious population, and shows a steady increase in the last ten years. The product of the gold mines in the Atlantic States has, however, fallen off since the discoveries of gold in California.

18.[1] *Statistics of Coal produced in the United States during the year ending June 1, 1860.*

States.	Bituminous.		Anthracite.	
	Bushels.	Value.	Tons.	Value.
Rhode Island	95,000	$28,500	1,000	$5,000
Pennsylvania	66,994,295	2,833,859	*9,397,332	11,869,574
Maryland	14,220,000	464,338	.....	.....
Ohio	28,339,900	1,539,713	.....	.....
Indiana	379,035	27,000	.....	.....
Illinois	14,258,120	964,187	.....	.....
Iowa	72,500	6,500	.....	.....
Missouri	97,000	8,200	.....	.....
Kentucky	6,732,000	476,800	.....	.....
Virginia	9,542,627	690,188	.....	.....
Georgia	48,000	4,800	.....	.....
Alabama	10,000	1,200	.....	.....
Tennessee	3,474,100	413,662	.....	.....
Washington Territory	134,350	32,244	.....	.....
	144,376,927	7,491,191	9,398,332	11,874,574

Anthracite—tons	9,398,332	$11,874,574
Bituminous—tons	5,775,077	7,491,191
Aggregate tons	15,173,409	19,365,765
Value of coal mined in 1850		7,173,750
Increase, (169.9 per cent)		12,192,015

[1] *Ibid.*, p. 173.

* Of bituminous coal, Pennsylvania produced 46.4 per cent. of the quantity, and 37.8 per cent. of the value of the whole; of all kinds of coal, 75.9 per cent. of the whole value.

Statistics of Copper and other metals mined in the United States during the year ending June 1, 1860.

States	Nickel.		Zinc.		Lead.		Copper.	
	Tons of ore.	Value.	Tons of ore.	Value.	Tons of ore.	Value.	Tons of ore.	Value.
New York	.....	.....	.....	.....	.....	$800	.....	.....
Pennsylvania	2,348	$28,176	11,800	$72,600	.....	.....	70	$2,450
Maryland	.....	.....	.....	.....	.....	.....	1,500	60,000
Michigan	.....	.....	.....	.....	.....	.....	6,283	2,292,186
Illinois	.....	.....	.....	.....	.....	72,953	.....	.....
Wisconsin	.....	.....	.....	.....	.....	325,368	.....	.....
Iowa	.....	.....	.....	.....	.....	160,500	.....	.....
Missouri	.....	.....	.....	.....	4,164	356,660	50	6,000
Virginia	.....	.....	.....	.....	.....	61,000	1,500	31,880
North Carolina	.....	.....	.....	.....	.....	.....	2,000	105,000
Tennessee	.....	.....	.....	.....	.....	.....	2,379	404,000
New Mexico	.....	.....	.....	.....	.....	.....	650	415,000
Total	2,348	28,176	11,800	72,600	.....	977,281	14,432	3,316,516

The Fisheries—1860

19.[1] In the aggregate product of the Fisheries there was an increase of 28.5 per cent. over their value in 1850. The total value of the lake, river, shore, and deep-sea fisheries, including oysters to the value of $382,170, and $7,521,588 as the product of the whaling business, amounted in 1860 to $12,924,092. Of this amount $6,526,238 in the whale and $2,774,204 in the cod, mackerel, halibut, and other shore fisheries, belonged to the maritime industry of Massachusetts, and constituted nearly seventy-two per cent. of the whole. This favorite occupation of her enterprising sons has made Boston, which has been over two and a quarter centuries engaged in the business, the principal distributing fish market of the Union, and has raised the port of Gloucester to the third rank among New England seaports in the amount of its foreign commerce. The latter has become the largest seat of the domestic fisheries in the United States, if not in the world, and distributes the products to all the large cities of the Union and to foreign countries.

The State of Maine holds the second place in respect to the value

[1] *Ibid.*, pp. 70-71.

of its fishing interests, and returned $1,050,755 as the value of the cod, mackerel, herring, &c., taken by its fishermen. North Carolina has the largest shad fishery, amounting in value to $99,768. New Jersey, New York, and Virginia took the largest amount of oysters, and Michigan returned the largest value in white fish, amounting to $250,467.

A slight decline in the value of the whale fishery arose from the increasing scarcity of the whale in its former haunts. The consequent deficiency of bone, teeth, and oil, as raw materials, proved embarrassing to some branches of manufacture, particularly those employing whalebone. The scarcity of whale and other fish oils in the arts has been supplied by an increased production of lard oil, and especially by that beneficent law of compensation which pervades the economy of nature, and when one provision fails her children, opens to them another in the exhaustless storehouse of her material resources, or leads out their mental energies upon new paths of discovery for the supply of their own wants. Thus, when mankind was about to emerge from the simplicity of the primitive and pastoral ages, the more soft and fusible metals no longer sufficed for the artificer, and veins of iron ore revealed their wealth and use in the supply of his more artificial wants, and became potent agents of his future progress. When the elaboration of the metals and other igneous arts were fast sweeping the forests from the earth, the exhaustless treasures of fossil fuel, stored for his future use, were disclosed to man, and when the artificial sources of oil seemed about to fail, a substitute was discovered flowing in almost perennial fountains from the depths of these same carboniferous strata. A decline of the cod and whale fisheries is, nevertheless, to be regretted, as they have been from the earliest period of our history the nurseries of seamen and of our naval and commercial marine, and therefore contributing to the national defence, to foreign commerce, ship-building, agriculture, and other important interests.

20.[1] *Product of the Fisheries during the year ending June 1, 1860.*

States and Territories	Total
Maine	$1,050,755
New Hampshire	64,500
Massachusetts	9,300,442
Rhode Island	308,750
Connecticut	1,012,189
New York	151,040
New Jersey	209,277
Maryland	21,105
Indiana	17,500
Michigan	250,467
Wisconsin	83,512
Virginia	86,745
North Carolina	101,868
Florida	68,952
Texas	6,093
California	113,950
Oregon	13,450
Washington	63,497
Aggregate	12,924,092

[1] *Ibid.*, p. 188.

CHAPTER VII

DEVELOPMENT OF COMMERCE: 1820 TO THE CIVIL WAR

IN THE two decades preceding the Civil War the growth of domestic and foreign commerce was not only rapid but continuous. The extension of the railway system eliminated distances and overcame natural barriers to the transportation of goods from the West which the canal had only partly overcome. In the export trade the South could claim leadership (New Orleans ranking first as an export center), principally because of the heavy exportation of cotton, the total exports of this commodity representing approximately one-half of the exports of the entire nation, the remainder consisting mainly of wheat, corn, flour, and lumber; in the coastwise trade, likewise, cotton assumed a leading position. Although New Orleans ranked first among the export centers of the United States, with New York City second, the situation was different with respect to the import trade. In this trade New York came first, followed by Boston, with New Orleans third. The principal articles of importation were manufactures and numerous luxuries and semi-luxuries,—coffee, tea, and the like. The close economic ties which in earlier decades had held America to Europe were still in evidence. Europe, especially England, continued to be our best buyer, and she in turn furnished us with the bulk of our imports (Nos. 1-4).

Even after 1840, when the railway system of the country had tapped the vast resources of the Northwest and an active trade from east to west had been made possible, the trade on the Mississippi River continued to flourish, the increase in cost on shipments making this condition possible. However, the supplies of Western grain, flour, pork products, hides, wool, and minerals, destined for the Eastern or European markets, were no longer sent by the circuitous southern route. Especially after 1854 the establishment of the trunk lines indicated that river and canal traffic, to a very large extent, was being displaced by the railway.

Simultaneously with the growth in railway mileage the tonnage used in the coastwise and Great Lakes trade increased steadily, as did likewise the tonnage employed in foreign trade—especially after 1845 (No. 5). In competition with foreign sailing-vessels and

early steamships constructed by Great Britain, the American clipper ship could claim distinct superiority. Indeed, by 1860 the tonnage of the American merchant marine was approximately equal to that of Great Britain. But revolutionary changes in ship construction which occurred after the first successful experiments with the steamship in transoceanic navigation eventually wrested from the United States its position of maritime preëminence. The granting to American steamship lines of subsidies in 1845 and again in 1847 enabled a number of American lines to gain a temporary foothold. These subsidies, however, were withdrawn in 1858. The financial assistance which the British steamship companies continued to receive from their government gave them a competitive advantage which it was impossible for our steamship companies to overcome. To this fact should be added the destruction of American tonnage during the Civil War. Both causes, combined with the quick adjustment of English shipbuilders to the construction of the iron vessel, account for the rapid decline of American shipping following the Civil War (Nos. 6-11).

Although the East and the Northwest were fairly well provided with means of transportation, the Far West until the middle of the 'fifties was still very largely dependent for its supplies upon the long and difficult voyage around the Horn or the route across the Isthmus.

Summary of the Development of Foreign Trade

1.[1] At the adoption of the Constitution, our trade with France did not exceed seven million five hundred thousand dollars annually, including her colonies. Our imports were, coffee, sugar, rice, oils, fruits, brandies, liquors, cotton, laces, silk, linen, drugs, glass, hardware, etc.; our exports, fish, breadstuff, products of forest, tobacco, negroes, etc. In 1795, this trade went up to ten million dollars, but declined again very rapidly to the close of the century. In 1807 and 1808 our exports were very large, reaching from eleven to thirteen millions, which points up to 1833, they did not again pass and only once or twice equaled. Our imports from an average of one million dollars at the opening of the century averaged in 1831 to 1833 thirteen million dollars. With regard to the French islands, Mr. Pitkin thus compares their policy with that of Britain at the close of the last century. The policy of Britain was to monopolize the carriage of the articles, that of France to monopolize the articles themselves. Britain was willing the United States should have sugar and coffee if British ships carried them; France was willing the Americans might supply her plantations with what she could not supply them herself, but would

[1] De Bow, J. D. B., *The Industrial Resources, Etc., of the Southern and Western States,* vol. iii, pp. 382-384. See note p. 110.

not allow them to receive in return the valuable products of the islands which she monopolized to herself. Our trade increased notwithstanding. During the wars of Europe the ports were left entirely open, and France offered to secure their trade forever to the United States, on the condition their possession might be guaranteed to her. This was declined. Our trade became enormous, and we supplied the mother country through the islands. From 1795 to 1801, this trade averaged eighteen millions of dollars, whilst from 1821 to 1833, it never exceeded two millions. In the first period, the imports were several times the exports, in the last the exports have generally been larger. The American trade with Hayti from 1821 to 1833, was larger than with all the French Islands.

The wars of the French Revolution, as we have remarked before, were most favorable to our neutral commerce. We supplied the Spanish Islands during most of the time, and our trade with them at the beginning of the century averaged twenty millions of dollars. The average from that period to 1820 was about five and a half millions exports. From 1820 we began to keep our accounts with Cuba and the South American States separately. From 1820 to 1833 our trade with Cuba averaged twelve millions annually, the imports invariably exceeding the exports largely, and was next in importance to that of England and France. The chief exports have been provisions, domestic manufacture, furniture, etc., etc. With the other Spanish Islands our trade from 1821 to 1833, varied from one to two millions. With Mexico, from 1825 to 1833, the average trade was about ten millions; imports generally the most; with Central America average about one-half million; with Columbia, two million dollars; Buenos Ayres, two million dollars; Chili, two million dollars; Peru, less than one million. To old Spain, herself, we have exported domestic produce, etc., etc., and our trade at the opening of the century averaged six millions of dollars, whereas, it has since varied from one to two millions. It was largest when the peninsular wars raged.

With Portugal and dependencies, we have traded in wines, fruits, wheat, oil, staves, bedding, etc. From 1795 to 1801, our exports averaged five hundred thousand dollars, and imports near one million. From that period until 1820, except the years of war in Spain and Portugal, the average export was about one million. The imports and exports together have never since exceeded half a million. With the island of Madeira we have conducted about an equal trade; and with Brazil, since the government was removed there, and the other colonies, the trade from 1809 to 1820 averaged about one million dollars, since which it has gone up to from five to eight millions of dollars.

From Russia we have chiefly imported hemp and duck. The average imports at the beginning of the century was one million, three hundred thousand dollars, but from 1821 to 1833, the average was near two million five hundred thousand dollars; our exports have seldom been one-half million, a very small part of which has been domestic

produce. In 1810 and 1811, the export was between four and five million dollars, a large part being destined for England. We send generally cotton, tobacco, rice, oak bark, coffee, sugar, dyewoods and spices. We also import iron, cordage, drillings, diapers, tickings, etc.

Since 1823, our accounts with Norway and Sweden have been kept together. With Sweden our trade is chiefly in iron. From 1821 to 1833 the imports averaged about one million, whilst the exports have seldom exceeded one-third of that amount. From 1795 to 1801, we traded with Swedish West Indies to the amount of one million dollars annually. The trade became much more considerable afterwards, when the trade with other islands was carried on through these. Since 1821, this trade has declined at last to about one hundred thousand dollars per annum.

The account with Denmark and Norway was conjoined until 1823. This trade from one million of dollars in 1800, rose to one and a half millions in 1805-7. During our non-intercourse with Britain and France in 1809-10, and whilst Hamburgh was occupied with the French, quantities of cotton, tobacco, sugar and coffee went to these quarters, destined for other countries. From 1812 to 1833, this trade averaged only three or four hundred thousand, the imports being scarcely anything. With the Danish as with the Swedish West Indies, our trade did once reach three to five millions of dollars. From 1821 to 1833, the average has been not far from four millions of dollars. The trade with the British Islands was conducted through them.

With Hamburgh, Bremen, and the northern ports of Germany, we traded largely before their occupation by French troops. Hamburgh has been the great depot for Germany and the North of Europe. By the Elbe and Weser, and the canals, German manufactures are brought to Hamburgh. They are the cities of imports for Germany. In 1795 our trade with these cities was one and a half millions, 1797-8 and '99 it averaged eighteen million dollars: the exports generally doubling, and often many times exceeding the imports, and being for the most in foreign goods. Since 1821 the trade has averaged about four and a half millions of dollars.

For the same causes that the Hamburgh trade advanced, that with the Netherlands did also. The continental system was never thoroughly enforced there, even under Louis Bonaparte. The average trade from 1795 to 1801 was, exports, five millions; imports, one and a half millions. From 1804 to 1807 the exports averaged near fifteen millions of dollars a year, chiefly foreign produce. From 1821 to 1833 the whole trade has varied from three to four millions a year, the exports being double the imports. In 1833 the trade with Belgium was kept separate, and was one million dollars. Our exports are tobacco, rice, cotton, &c., sugar and coffee; imports, woolen, linen, spirits, and various manufactures. With the Dutch West Indies we have prosecuted considerable trade; to the extent, one time, of five to eight millions; from 1821 to 1833 it has seldom exceeded one to one

and a half millions. With the Dutch East Indies we conducted the carrying trade from 1795 to 1801. In the last year the exports reached four millions of dollars, being coffee, spices, &c. The trade has seldom exceeded one and a half millions since.

We have exported to Italy, fish, sugar, coffee, pepper, &c., and imported wines, silks, brandies, fruits, bonnets, oil, paper, rags. The trade has never exceeded three millions of dollars a year, and has most generally been from one to two millions; the imports being in large excess.

Our trade with China opened in 1784. In 1785 Captain Dean, in a little sloop of eighty tons and seven men, made a successful voyage to Canton. In 1789 we had more vessels at Canton than any other nation, except Britain. The imports are teas, silks, nankeens, China-ware; with the former we supplied Europe during the wars. We have consumed, 1789 to 1800, two and a half million pounds of tea, annually; from 1801 to 1812, three million three hundred and fifty thousand pounds; from 1821 to 1833, seven million. The Americans also prosecute trade between China and other parts of the world.

Our direct trade with Canton from 1821 to 1833, has varied from one to five million exports, and three to seven million imports. The exports are furs, ginseng, cottons, raw cotton, &c.; specie, quicksilver, opium, cloths. The specie export has sometimes reached five million, the average from 1828 to 1833 was four million dollars. We formerly conducted a large fur trade from the north-west to China in addition. Our hardy mariners and traders were found in the most perilous seas. The inhabitants of Stonington, Connecticut, says Mr. Pitkin, in their little barks of fifty or eighty tons, pursued the sealing business, finding a market now at home. The amount of furs carried into China by the Americans, from 1800 to 1803, was one million six hundred thousand dollars. From 1815 to 1817 the average was three hundred thousand dollars a year. In 1819 the Americans began to carry English goods from England to China, to the amount of near one million dollars a year. The whole value of trade with Canton, on American account, from 1804 to 1833, was, in periods of ten years:—1st period, average imports, three million dollars—exports, three million dollars; 2d period, imports, six and a half million dollars—exports, six million dollars; 3d period, imports, five million eight hundred thousand dollars—exports, six million dollars. In 1833 the exports and imports were eight million dollars each. Our exports to Canton are specie, bills on England, and merchandise—the latter being in general one-third or one-quarter, but sometimes one-half of the whole export.

2.[1] Let us now advert to the progress of commerce, seeing that the growth of national wealth may be expected to manifest itself in an

[1] Tucker, George, *Progress of the United States in Population and Wealth in Fifty Years, as Exhibited by the Decennial Census,* pp. 205-6. New York, 1843.

See note pp. 158-159.

increase of exports and imports. But since they greatly vary from year to year, it will be necessary to take the average of several years.

The average imports for the three years, from March 4th, 1789, to March 4th, 1792, were as follows:

The imports from March 4th, 1789, to December 31st, 1791	$52,200,000
" from December 31st, 1791, to March 4th, 1792, equal to one-sixth of the imports of that year,	5,250,000
One-third of	$57,450,000
is	$19,150,000

The average imports of 1839, 1840, and 1841 are $132,393,000, which shows an increase in fifty years of 692 per cent, equal to a decennial increase of 47 per cent, which is about two-fifths, or 40 per cent more than the average decennial increase of population.

The average annual exports of domestic products from March 4th, 1789, to March 4th, 1792, were $13,500,000, and for the years 1839, 1840, and 1841, the average was $107,937,000, showing an increase of 799 per cent in 50 years, which is equal to a decennial increase of something more than 51 per cent.

Again: The average imports for the years 1819, 1820, and 1821, were $74,720,000, and when compared with those of 1839, 1840, and 1841, an increase is shown of 77 per cent in 20 years, equal to a decennial increase of 33 per cent, which is rather less than the increase of the population in the same period.

The consumption of those commodities which are in extensive, but not in universal use, may also be presumed to indicate the progress of wealth. Of this character are tea, coffee, and wine, all of which, moreover, being imported from abroad, their home consumption can be accurately ascertained.

		From 1808 to 1812	From 1836 to 1840
The average quantity annually consumed of Coffee, was	lbs.	16,158,000	96,274,000
" " " " " " Tea,		3,445,932	14,591,000
" " " " " " Wines,	gls.	1,737,002	5,422,000

The increased consump. in 30 years of Coffee, 495 p. cent; the decen. increase 81 p. cent.
" " " " 30 " " Tea, 323 " " " 61 "
" " " " 30 " " Wine, 212 " " " 46 "

It would seem, then, that from 1808 to 1838 the increased decennial consumption of coffee compared with that of the population, has been as 33 to 81; of tea, 33 to 61; and of wine, as 33 to 46.

It must, however, be remembered, that for the last six years of the term, coffee, which had previously paid a duty of 5 cents per pound,

and teas, which had paid an average duty of more than 20 cents per pound, have been free of duty; and that for the same period the duties on wine have been greatly reduced. It is not easy to say how far the increased consumption of these commodities is to be attributed to the changes in the tariff, but it does not probably exceed 20 per cent, and may be much less.

Extent of Export and Import Trade

3.[1] . . . The aggregate value of the goods imported and exported from the United States, in 1860, approached $763,000,000, or (say) £152,600,000 sterling. This was an inferior trade to that of Great Britain, which, in the same year, conducted an import and export business, amounting to £375,000,000 sterling—a trade which has since been so much increased as to exceed £500,000,000 sterling. But, except France, there is no other country which approaches the United States in the value of its trade. A very remarkable circumstance is this, having regard to the ages of the nations. The trade of Europe has been the growth of centuries: that of the United States is the growth of less than eighty years, and it already surpasses the trade of every nation but our own.

Let us see, in the first place, how this trade has grown up. The following table gives the value of the imports and exports of the United States from 1844 to 1860:

IMPORTS AND EXPORTS OF THE UNITED STATES

Year.	Imports.	Exports.
1844	$108,435,035	$111,200,046
1845	117,254,564	114,646,606
1846	121,691,797	113,488,516
1847	146,545,638	158,648,622
1848	154,998,928	154,032,131
1849	147,851,439	145,755,820
1850	178,138,318	151,898,720
1851	216,224,932	218,388,011
1852	212,945,442	209,658,366
1853	167,978,647	230,976,157
1854	304,562,381	278,241,064

[1] Peto, Sir S. Morton, *The Resources and Prospects of America, Ascertained During a Visit to the States in the Autumn of 1865,* pp. 222-230. London and New York, 1866.

Editor's Note.—Samuel Morton Peto (1809-1889) was a distinguished English engineer and politician, whose principal professional work was the construction of the Southeastern Railway. Peto was at one time a member of Parliament. In 1865 he visited the United States. On the whole his work is reliable, although not altogether free from prejudice.

1855	261,468,520	275,156,846
1856	314,639,942	326,964,908
1857	360,890,141	362,960,682
1858	282,613,150	324,644,421
1859	338,765,130	356,789,462
1860	362,163,941	400,122,297*

* It is quite useless to attempt to give the statistics of the imports and exports of the United States between 1860 and 1866. In consequence of the excessive fluctuations in the values of money during that interval, the declared and estimated values of articles imported and exported were so singularly affected, that no reliable conclusions can be drawn from them. Some attempts have been made to reduce the estimated values of imports and exports to "gold value," so as to arrive at something like a view of the excesses and deficiencies in various branches of commerical business. I am afraid, however, that, from the same cause (the fluctuations in the value of gold at different periods), these calculations can only be approximative. I have, therefore, thought it better, though not without much consideration and considerable regret, to set aside the commercial statistics during the years of the civil war as only calculated to occasion misconception.

There are two points in this table which must, I think, strike every one who glances at it.

First, That the trade of the United States has been *regularly* and *steadily* progressive.

Second, That the nation has uniformly paid its way: the exports, in almost every year, having exceeded the imports, and the general balance being in favour of America.

It is scarcely necessary to enlarge on these prominent features. The tables, in fact, tell their own tale. They speak of the same progressive prosperity which Great Britain boasts of in years of peace. It will be observed that the most remarkable rise in *exports* occurred in America in 1851, when that trade increased from $151,000,000 to $218,000,000, or upwards of one-fourth. This is accounted for by the discovery of gold in California, which, in 1851, became, for the first time, an article of considerable export, in the form of bullion and specie. It is observable that the *import* trade of the United States did not altogether rise in correspondence with that export. In 1853, indeed, the imports were less than they had been in either of the three years previous; but after that, the balance of trade being in favour of the nation, and the Californian gold contributing vastly to her wealth, the imports were largely increased. 1854 showed a total of $304,000,000 of imports, or upwards of £60,000,000 sterling, largely paid for in specie, the export of which, in the following year, amounted to nearly $54,000,000, or upwards of £10,000,000 sterling. These figures show the extent to which the discovery of Gold in California affected the development of the trade of the United States.

From 1854 to 1860 the average annual exportation of specie and bullion from America was maintained. It was nearly $54,000,000 in 1854, and it approached $57,000,000 in 1860. In 1857, when the

imports rose to their largest amount, the export of native gold was as much as $60,000,000; and it is observable that in 1861, the year of the commencement of the war, the bullion sent in for coinage to the mints of the United States amounted to $83,693,000. But that which is to be regarded as far more satisfactory is, that during these years almost every item of native produce exported had risen in nearly the same proportion with the gold.

PRODUCTS OF THE UNITED STATES EXPORTED IN SEVERAL YEARS

Products of	1847.	1850.	1855.	1860.
The Sea.....	$ 3,468,033	$ 2,824,818	$ 3,516,894	$ 4,156,480
The Forest ...	5,996,073	7,442,503	12,603,837	13,738,559
Agriculture...	68,450,383	26,547,158	42,567,476	48,451,894*
Tobacco.....	7,242,086	9,951,023	14,712,468	15,906,547
Cotton.....	53,415,848	112,315,317	88,143,844	191,806,555
Manufactures.	10,476,345	20,136,967	28,833,299	39,803,080
Raw Produce .	1,526,076	1,437,680	2,373,317	2,279,308
Specie and Bullion.....	62,620	18,069,580	53,957,418	56,946,851

* The export of grain, as already explained, depends materially, not upon the produce of the country, but upon the state of the crops in other regions of the globe. It amounted to $77,000,000 in 1856. In 1860, the exports of the products of agriculture were low; but in 1861, they rose to $101,655,000, and in 1862 to no less than $124,561,000, or nearly £25,000,000 sterling.

Thus we see the exports of the United States increasing not in gold alone, but in every different description of production. In considering the subject of American resources, nothing could give more satisfactory view of them than this table. It shows that there is no industrial pursuit in which the people of the United States do not steadily progress, and scarcely any demand for any class of produce which they are not able to supply.

The great variety of the native productions exported, gives assurance of the impossibility of failure in the resources of the nation. If the Americans were limited to a few products, it might be argued that such products might not be in demand, or that their supply might fail, or that other countries might compete successfully with America by producing them in greater abundance and at lower rates. But here we have the products—

Of the SEA—consisting of oil, whalebone, spermaceti, and dried, smoked, and pickled fish.

Of the FOREST—consisting of every description of timber, shingles, staves, lumber, naval stores, and furs.

Of AGRICULTURE—consisting not only of every description of corn

and vegetable food, but of the products of animals: beef, pork, tallow, hides, bacon, cheese, butter, wool, lard, hams; horned cattle, horses, and other animals.

Of the GREAT STAPLES of the Southern States, cotton, tobacco, rice, and sugar.

Of MANUFACTURES—in very great variety.

Of RAW PRODUCE—in increasing quantities; and

Of SPECIE and BULLION—to an extent which has never yet been exceeded.

Even then, supposing that the supply or the demand were to fail in respect to any one of these articles of produce, it may be anticipated that any loss in regard to that one item of exportation would be amply compensated for by excess of exportation in some other item. This occurs with all nations that support an extensive trade. For example, England, during the civil war in America, lost a very large proportion of her cotton trade. For several years she could neither import the raw material, nor could she export the manufactured article. Cotton was so important an element of her trade that, in 1860, "cotton goods" of British and Irish production constituted upwards of *one-third* of the whole exportation of the United Kingdom. As we could not manufacture these goods we could not maintain this export. Yet what occurred? Woollen and linen goods largely supplied the place of cottons, and our export trade, so far from being injuriously affected, rose considerably. In 1860, the declared value of the domestic produce exported from Great Britain amounted to £135,842,000; in 1865 it amounted to £165,862,000. We may take it that whenever one product may fail, or may be superseded, in a largely producing nation, its place will be supplied by some other article which adds equally, if not more largely, to the national wealth.

We may regard it, therefore, as a certainty, now that peace in America is restored, that the nation will increase her foreign trade. Not only will the variety of the native productions tend to this result, but the variety of the countries to which these productions are applicable, and the variety of purposes for which they are required. America trades, as Great Britain trades, with every nation of the globe. It may be interesting to examine the character of the trade of the United States, as shown by her exports to the various countries of the world.

I regret being obliged to take this table from the returns for 1862, as it consequently does not represent the full amount or the real value of the exports of the United States to each foreign nation. But it shows sufficiently the diversity and the extent of the trade; and in other respects it is a curious record. It will be seen that no less than *one-half* of the whole export trade of the United States is to Great Britain; and that her third largest trade is with British North America. These facts show the vast importance to both nations of maintaining friendly relations. There is another fact deducible from this table. It shows the current in which the nation principally works.

EXPORTS OF THE PRODUCTS OF THE UNITED STATES TO DIFFERENT COUNTRIES IN 1862

Countries.	Value of Exports.
Great Britain	$105,898,554
France	26,014,181
British North America	18,652,012
Hamburg and Bremen	12,672,646
Spanish West Indies	10,626,642
British West Indies	6,928,527
China and Japan	4,328,506
Brazil	3,748,249
British East Indies and Australia	3,520,663
Holland and her Possessions	3,237,022
Belgium	3,192,691
Hayti and San Domingo	3,088,108
New Granada and Venezuela	2,968,871
British Possessions in Mediterranean	1,859,460
Mexico	1,840,720
Italy	1,560,361
Chili	1,010,051
Denmark and Danish West Indies	1,007,667
Liberia and Ports in Africa	994,112
Spain and Canary Isles	990,449
Buenos Ayres and Argentine Republic	974,279
French West Indian Colonies	924,515
Portugal and her Colonies	708,029
Peru	571,652
Sandwich Islands	496,983
Turkey	444,397
Uruguay	290,259
Russia	153,471
Central America	115,640
Pacific Islands	100,414
Sweden and Norway	78,773
Austria	35,615
Total	$213,069,519

Apart from the commerce which subsists between Great Britain and the United States, British trade is most largely conducted in the old world, and in her own dependencies in India and Australia, whilst this table shows us that a very large proportion of the American trade is directed to countries in her own hemisphere—to British North America,

the West India Islands, the Brazils, Hayti, New Granada, Mexico, Chili, Peru, the Sandwich Islands, and the islands of the Pacific Ocean generally. And in some of these cases, America, it should be observed, has the trade almost entirely to herself.

The great bulk of the export trade of the United States is carried on from New York, New Orleans, Boston, Baltimore, Mobile, Charleston, and Philadelphia, in the order in which those cities are respectively named. But it is curious to notice how the trade of San Francisco is developing itself. At the present time, the vessels which enter and clear at that port number no less than 1,000 per annum, trading with every part of the Pacific, as well as with other portions of the world. With China especially, a very large trade is being developed from San Francisco. Flour, wheat, lumber, bacon, butter, cheese, lard, wine, and vegetables, are all exported from San Francisco to China in increasing quantities. The Chinese who have settled themselves in California (in spite of the most determined efforts to exclude them on the part of a section of the population) have done great service in teaching their countrymen at home the use and value of Californian products, and in overcoming their ancient prejudices to "barbarian" diet. Let this trade only be fairly inaugurated, and the requirements of a population almost illimitable will give assurance of a most important market for the staple products of the United States at remunerative prices. The enterprize of the Americans will unquestionably result in making San Francisco one of the most important of modern ports. The position of the country, the variety of its productions, the character of the population, and the extent of their resources, must all contribute to make California one of the greatest markets of the world. And when railway communication shall bring the seaboard of the Pacific into communication with that of the Atlantic, it may be anticipated that a very considerable proportion of the trade of Europe with China and Japan will be conducted through San Francisco.

4.[1] But I must hasten from this branch of the subject, in order to consider the imports of the United States. The principal items are included in the following list of articles:

This list sustains in a very complete manner the observations in a previous section respecting the manufactures of the United States. Of textile fabrics, piece goods of silk, wool, cotton, and linens, carpetings, hosieries, ribbons, and embroideries of all sorts, are the largest classes of goods imported. In metals, cutlery and railroad iron are the largest items; tin, in plates and sheets, and lead, in bars and sheets, following. China, porcelain, and stone-wares amount to a very considerable figure, and glass of every description, from polished plate-glass to watch-glasses, forms another large item. Champagne is the largest item in the list of European wines; claret and other red wines (generally of low quality) representing a scarcely less inferior

[1] *Ibid.*, pp. 230-233.

PRINCIPAL ARTICLES OF AMERICAN IMPORT

Buttons.	Oils.
Beads and Bugles.	Paints.
Coal.	Paintings.
Cabinet ware.	Percussion Caps.
Coffee.	Pickles and Sauces.
Copper, Manufactures of.	Plated Ware.
Cottons, and Cotton Goods.	Pins.
Clothing (not of wool).	Pipes and Pipe Cases.
Drugs and Dyes.	Plumbago, or Blacklead.
Embroideries.	Potash and Saltpetre.
Fruits.	Ribbons.
Furs.	Saddlery.
Earthenware and China.	Silks, and Silk-dress Goods.
Glass, and Glass wares.	Seeds.
Gloves.	Soda.
Gums.	Spices.
Hair, Manufactures of.	Spirits (chiefly Brandy).
Hemp, and Hempen Manufactures.	Sugar.
Hosiery.	Tea.
Iron, Steel, and Cutlery.	Tin and Tinware.
Lead, and Manufactures of.	Tobacco, Cigars, and Snuff.
Leather, Calfskin, &c.	Toys and Dolls.
Marble.	Watches and Watch materials.
Metals—Platina, Nickel, &c.	Wool, and Woollen Clothing.
Needles.	Zinc.
Nuts.	Household and Personal Effects of Immigrants.

amount. Brandy is the only spirit introduced in any very considerable quantity. Amongst fruits, raisins are the largest item; and amongst spices, black pepper and pimento. Upon the whole, the Americans, judging from their imports, appear to have much the same tastes and requirements as ourselves, though they are exempted from paying the enormous amounts which we pay for imported articles of farinaceous food and general provisions.

It cannot be said that articles of luxury enter largely into the amount of American importations. Silk dresses and furniture appear to be the two items most largely in demand. But no jewellery is found in the list of imports, and very little plate.

It is not many weeks since the people of England were cautioned, as many persons thought without due necessity, against entering into largely extended commercial transactions with America. I do not propose to re-open the controversy. But I think the tables given in

this chapter will show that the Americans have not been prone to over-trading beyond their means. The American import trade appears to consist of articles of necessity and utility, for which there is always an abundant market. During the Civil War this trade sunk greatly. In 1860 their imports amounted to $362,000,000; in 1865 they only amounted to $234,000,000, a difference of no less than $128,000,000. No small credit is due to them for such an exercise of caution and forbearance; and now that the war is over, and that largely-increased prosperity is about to attend the return of a large proportion of the working population to their ordinary industry, there seems to be no good ground for checking that supply of articles of consumption which is the natural consequence of a re-opening of the old accustomed ledgers.

In addition to the increased wealth in process of development, there is no doubt that the Americans, during their war, invested largely in the securities of this country; and we also know that Europeans have been large buyers of American railway debentures and State securities. There need be little apprehension, therefore, either of the balance of trade being unduly against the United States, or of her being found deficient in means to pay for whatever she may purchase. From July, 1865, to the time at which I write (February, 1866), the price of gold in New York has scarcely fluctuated 5 per cent.,—in singular contrast to the war excitement of the year before. There has been no export demand to advance the price; and although gold at present is from 80 to 83 points below its price at the commencement of 1865 (it was then 227—it is now 145 to 144), the prices of American securities have not fallen in proportion. In fact, the commercial men of the nation rely with confidence on the resources of America.

Growth of the Great Lakes Trade

5.[1] That portion of the "Great West" at the western extreme of the basin of the St. Lawrence has received a larger share than any other portion of our country of the valuable addition to our national riches arising from the industry, intelligence, and wealth, of the hundreds of thousands of foreigners who, within a comparatively brief period, have landed upon our shores. It is, therefore, impossible to estimate the enormous and continuous accumulation of wealth, having its basis on the ample resources and natural riches of that great western region, over which the star of American empire seems now to rest.

In connexion with an unequalled increase of population in the Great West, the growth of the lake trade has been so extraordinary and so rapid, that but few persons are cognizant of its present extent and value.

[1] Communication from the Secretary of the Treasury. Washington, 1853. 32 Cong., 1 Sess., Senate, Ex. Doc. 112, pp. 3-5.

In 1841 the gross amount of the lake trade was sixty-five millions of dollars. In 1846 it had increased to one hundred and twenty-five millions. In 1848, according to the estimate of Colonel Albert, of the topographical engineers, the value of the commerce of the lakes was one hundred and eighty-six millions. Owing to various causes, but particularly to the great influx of foreigners, and the opening of new and extensive lines of intercommunication, it has recently increased still more largely, until, in 1851, it amounted to more than three hundred millions. And these estimates do not include the value of the property constantly changing hands, nor has any notice been taken of the cost of vessels, or the profits of the passenger trade.

It is not within the scope of this report, nor is it practicable therein, to attempt a *full* exposition of the trade and commerce of the Mississippi, the Missouri, or the Ohio, flowing through that great valley, unsurpassed in all the elements of wealth by any region in this or the Old World. This trade and commerce is worthy of the particular and earnest attention of American statesmen. And it is here proper to state, that one great cause of the growth of the lake trade is the fact that a cheap and expeditious route from the Atlantic to the Great West is afforded by the internal communications, by railroads and canals, opening the way through the great lakes and through the Alleghanies, instead of being restricted to the rivers flowing southward.

The following facts in relation to the trade of the Erie canal are presented as confirming the above, and justifying farther and full official investigation as to the entire internal trade of the West:[1]

In 1835 there left the lakes by the Erie canal for tide-water, 30,823 tons of wheat and flour. In 1851 there left the same points, on the same canal, 401,187 tons of similar articles.

In 1851 the total amount of wheat and flour which reached tide-water by the New York canals, was 457,624 tons; showing that while between the lakes and tide-water the State of New York furnished 97,729 tons, or over 75 per cent. of the whole quantity delivered, in 1851 it only furnished 56,437 tons, or about 11 per cent. of the whole quantity, the remaining 89 per cent. having been received from the West, and from the territory of Canada on the lakes.

The total tonnage ascending and descending on all the New York canals in 1836 was 1,310,807 tons, valued at $67,634,343, and paying tolls amounting to $1,614,342; while in 1851 it amounted to 3,582,-

[1] The facts hereinafter stated with respect to the trade and commerce of the Mississippi and its tributaries, and of the States and cities on their shores, and on the Gulf of Mexico, and connected with them, are important not only in regard to that specific trade and commerce, but for their relation to that of the lakes and, inland, by canal and railroad to the Atlantic seaboard. It has been found in some degree necessary to refer to the former in full elucidation of the latter. The great interests of the southwestern and southern States demand, however, a fuller and more perfect notice than the resolution calling for this report, and limiting it to other sections, will allow to be now made.

733 tons, valued, ascending and descending, at $159,981,801, paying tolls amounting to $3,329,727.

Shipbuilding

6.[1] The number of tons built in the United States in 1820 was 47,780, not a large increase over the business of 1769. In the 40 years that succeeded 1820, the tonnage built rose to 583,450 tons in one year, step by step, with the increase of cotton. The employment of the colonial ships, during nearly 200 years, was fish and slaves,—the fish for the Catholic countries of Southern Europe, and the slaves for the South, and the West Indies. In all that time the construction reached up to 20,001, or 389 sail, of an average of 50 tons each. In 1820 the tonnage rose to 47,786, for 534 vessels, or 90 tons each; in 1855 there were built 2,034 vessels of 583,450 tons, or 290 tons average, showing the change in construction from the small cheap vessels built for the West India trade, to the large ships required for cotton transportation. The fisheries were the chief business of the Northern colonists, and they had not only the benefit of the large sale to the West Indies and to the Catholic countries of Europe, but the eating of fish in England had, by the law of Elizabeth, in 1563, been ordered on Wednesdays and Saturdays, for the encouragement of seamen, thus affording a large market, from which foreign fish were excluded. . . .

7.[2] The value of the tonnage built in New England in 1855 was $20,000,000; in the South, $1,160,000; in the West, $980,000. With the reaction of the "clipper" excitement, the New England shipping industry fell to $6,800,000 in 1858, and the South suffered some reaction, but not in proportion. In 1855, the South built 11 per cent. of the tonnage built at the North; in 1858, 25 per cent. The demand in that section for steamers and schooners in the coasting trade was supplied at home. The cotton crop requires an ever-increasing supply, in spite of the railroads. At the West, the falling off in the European demand for breadstuffs at the time of great development in railroads, evidently injured the schooner-building. The fact is apparent, that the South is the only section which maintained its construction of enrolled tonnage, and it did so to supply the wants of its great staple. The supply of tonnage is now very large, but an unprecedented crop of cotton is coming to market, and more active freighting induced by it, will again give employment to Northern builders. The value of the 4,000,000 sail tonnage in the Union is $160,000,000, divided as in the following table, which also shows the proportion of freight furnished by each section.

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[1] Kettell, Thomas P., *Southern Wealth and Northern Profits,* p. 78. New York, 1860.

Editor's Note.—Kettell also published a *History of the Great Rebellion,* a volume which enjoyed considerable popularity in the United States, as well as in Europe. Kettell at one time was editor of the *Merchant's Magazine and Commercial Review.*

[2] *Ibid.,* pp. 83-84.

	Registered Tons.	Value of shipping.	Extent of freights furnished.
North	1,781,368	73,145,879	2,000,000
South	391,518	17,618,111	24,500,000
West	50,236	2,260,620	1,500,000
Total	2,223,122	$93,024,610	$28,000,000

The South furnishes six-sevenths of the freight, but owns less than one-sixth of the tonnage. The North owns 80 per cent. of the tonnage, and supplies 7 per cent. of the freights.

Decline of American Ocean Tonnage

8.[1] In order fully to comprehend the extent of the decadence of American shipping and the causes which have operated to produce that decadence, we must ascertain the points at which the prosperity of this interest culminated, and trace it thence back to the source of that prosperity, and forward to the present time of decay. It is obvious that whatever causes may have existed prior to the commencement of the late rebellion tending to produce the present condition of our shipping, their effects did not become manifest until that period. Previously there was a gradual, steady, and healthy increase of our ocean tonnage, fluctuating with the fluctuations of business, but constantly gaining until the year 1861.

The increase of our tonnage engaged in the foreign carrying trade from 1830 to 1840, was about sixty per cent.; from 1840 to 1850, seventy-five per cent.; from 1850 to 1860, sixty per cent. This latter is the first decade in which we find any reliable statistics of the registered tonnage of Great Britain, to enable us to institute a comparison between it and our own. In this decade the tonnage of Great Britain, employed exclusively in the foreign trade of that country, increased about forty per cent. Our own tonnage engaged in the foreign carrying trade, reached its highest point in 1861, being that year 2,642,628 tons, while that of Great Britain was at the same time 3,179,683 tons, giving us the second place in rank among nations in the extent of our ocean tonnage, while we were the acknowledged superior of all in the proficiency which we had attained in the science of naval architecture and in the efficiency of our mercantile marine.

It is difficult to realize that our country, which in little more than half a century ending in 1860, had reached the very foremost rank of maritime nations, has in less than a decade lost half its merchant shipping and all its maritime prestige, and that we now stand debating whether we shall without a struggle yield all, and become the mere commercial dependency of the nation for whose advantage we have been thus spoiled and reduced.

[1] United States Congress. House. Committee on Causes of the Reduction of American Tonnage, pp. II-III. Washington, 1870.

From 1861 to 1866 our tonnage engaged in the foreign trade decreased from 2,642,628 tons to 1,492,926 tons, a loss of 1,149,902 tons, or more than 43 per cent., while Great Britain, in the same time, gained 986,715 tons, or more than 30 per cent. Even this statement does not show the full extent of our relative loss as compared with Great Britain, a very large percentage of the increase of the latter in tonnage having been made in steamers, one ton of which class of vessels equal in efficiency to at least three tons of sail vessels, while by substituting largely iron for wood, as building material, a still further advantage was gained over us in her much larger class of iron vessels, doubly as durable as those of wood. The increase of the steam tonnage of Great Britain during the period alluded to, was 275,988 tons, making an adition in efficiency over our sailing ships of at least 500,000 tons. So that, taking into account the durability and efficiency of the tonnage added by Great Britain to her merchant marine from 1860 to 1866, it would probably equal an increase of 50 per cent. of sail vessels.

9.[1] It has been urged by some that this depression of our navigation interests is the result of general causes, such as an over-production of tonnage and a depression in the business of the world.

But such causes, if existing, would be temporary in their operation. If the shipping of the world were temporarily in excess of the business of the world, the equilibrium would soon be restored by the natural decrease of ships and the ever advancing increase of commercial business. The period of prosperity would, as it always has, speedily follow that of depression. The facts stated, however, show a decline of our navigation interests running through a decade—a period too long to be affected by a mere depression of business or any overproduction of tonnage.

Moreover, the decline has been wholly in the shipping of the United States. While that of other nations has been *depressed* from the causes alluded to, there has not only been no absolute *decline*, but, as has been shown, a constant increase in tonnage and in the efficiency of their vessels. In 1868, there were built on the Clyde alone 197 vessels, of 169,571 tons, more than one-half of which were steamers. The total of tonnage built and registered in the United Kingdom in 1868 was 316,197 tons—a larger amount than was built in any one year prior to 1863.

It is obvious from the foregoing that the causes operating to produce the present condition of the navigation interest are special—such as affect American tonnage only—and, as your committee believe, may be readily ascertained.

The steady increase of our shipping engaged in the foreign trade up to the commencement of the rebellion, and the sudden and rapid

[1] United States Congress. House. Committee on Causes of the Reduction of American Tonnage, pp. IX-X. Washington, 1870.

decline from that point, leads directly to the conclusion that its decadence is attributable mainly, if not solely, to incidents of the war. According to the best available data, 919,466 tons of American shipping disappeared from our lists during the rebellion. Of this amount, 110,163 tons were destroyed by anglo-confederate pirates, while 803,303 tons were either sold to foreigners or passed nominally into their hands and obtained the protection of their flags. Here was an actual loss to the private owners of less than five per cent., and a loss to the nation of about thirty-seven per cent. of the total of American tonnage engaged in the foreign carrying trade. The loss of this amount of tonnage would not of itself have produced such disastrous results as we have seen had not the value of what remained been virtually destroyed by the peril in which it was placed from English piratical vessels sailing under the confederate flag. The risk of sailing under the American flag was so great as to divert a large share of the carrying trade into foreign bottoms, principally those of Great Britain.

That changes which have occurred in naval architecture and in the materials of which ships are now being constructed operated anterior to the rebellion, and tended to produce a revolution in the shipping of the world, is undoubtedly true. Iron, as a building material for ships, was fast superseding wood, and screw steamers were, as we have said, crowding out sail vessels on all ocean routes where the carrying of passengers and mails could be combined with the general freighting business. But it by no means follows that this revolution in the character of the mercantile marine of the world would, if peace had continued, have prevented us from maintaining with foreign nations our relative position as a great maritime power. Our people, with their sagacity, enterprise, and aptitude for mercantile and mechanical pursuits, would doubtless have perceived and availed themselves of the advantages resulting from this progress in nautical mechanics.

Having invented the steamship and first navigated the ocean with this class of vessels, and taken the lead of all nations in the science of naval architecture, we should, it may be safe to assume, have held our way against the world in competing for supremacy on the ocean, had not our attention been diverted from the pursuits of peace to the preservation of our national existence.

The war not only deprived us of the advantages resulting from this change in the character of commercial vessels and the currents of trade affected thereby, but gave an impetus to all business connected with ocean navigation, in the hands of our great commercial rival, and an advantage over us, that but for the war she would not have possessed. The business thus diverted into new channels could not be immediately regained by American vessels even under the most favorable circumstances. But the disastrous effects of the war did not cease with the return of peace. They were rather aggravated by the burdens of taxation which the war had left imposed upon all the industries of

the country, but which operated with peculiar hardship upon this particular interest, inasmuch as it is subjected to the unrestricted competition of untaxed foreign rivals, and this competition must be met not only at home in our own ports, but in all parts of the world.

In a contest so unequal there can be but one result, and that is the total loss of our foreign carrying trade and the destruction of our merchant marine. Under such conditions as these it is as impossible to revive our shipping interests, unaided by the government, as it would be to build up our manufacturing interests by imposing a heavy tax upon all raw materials, and at the same time admitting all manufactured articles free of duty.

10.[1] . . . If America had not gone to war with Great Britain in 1812 it is probable that she would have retained to this day her great ascendancy in general commerce. For a number of years she had occupied the seas—she had established extensive and profitable lines of trade between countries possessing no commercial marine of their own; as well as with all those commercial states which form the natural and permanent markets for produce. Such advantages would have secured to the United States the bulk of the carrying trade of almost every nation, which did not exclude her by positive legislation; and the increased European consumption of the products of tropical countries would have given her a great advantage. But America lost the great opportunity by inviting war; and she has never recovered it. In 1845 her tonnage engaged in foreign commerce was not greater than in 1807; and although it has since made considerable progress, the carrying trade of the United States cannot be said to be anything like what it might have been; indeed the tonnage of the United States is employed in the export of American produce rather than in the carrying traffic of the world.

From the form in which the national accounts are published, it is not very easy to arrive at a precise estimate of the number of vessels or the tonnage of the United States engaged at the present time in foreign trade. Their system is to "register" all vessels engaged in foreign commerce, and to "enrol" and "license" vessels engaged in inland navigation and the coasting trade. But a number of vessels appear to be both "registered" and "enrolled," and, consequently, the double entries are numerous. In 1860, the tonnage was classified as follows:—

Registered Sail Tonnage	2,448,941
" Steam Tonnage	97,296
Enrolled Sail Tonnage	2,036,990
" Steam Tonnage	770,641
Total Tonnage	5,353,868

[1] Peto, Sir S. Morton, *The Resources and Prospects of America, Ascertained During a Visit to the States in the Autumn of 1865*, pp. 213-221. London and New York, 1866. See note p. 199.

But this total includes not only what we should consider "tonnage," but every class of vessel, even down to fishing smacks and canal boats. The "registered" tonnage also includes, admittedly, all vessels engaged in the coasting trade, in the whale fishery, and the steamers and ferry-boats on the lakes engaged in the trade with Canada.[1] Moreover, I am by no means clear as to the way in which the Americans measure their tonnage. Until very recently, they divided each ton into "95ths," a calculation which it is difficult to understand or follow, and respecting which I have no satisfactory explanation. Within the last year a new system of admeasurement has been introduced; and, from the "Report of the Secretary of the Treasury," just published, it appears that the tonnage which, under "the *old* admeasurement," was computed at one figure, is estimated, "under the *new* admeasurement," at another and a smaller total. Each ton is now divided into "100ths," which, henceforth, no doubt, will greatly facilitate calculations. It will be obvious from all this, that to arrive at a conclusion as to the real amount of the sea-going tonnage of the United States, we must make a large deduction from the total above given.

As to the *progressive* increase of the mercantile shipping of the nation, there can, however, be no doubt. It is exhibited by the following figures, which show the tonnage of the "registered" sailing ships, and of the "enrolled and licensed" steamers for some years:—

The "Registered Sail Tonnage" of the United States, as given in the first of the foregoing columns, I apprehend to show pretty fairly the annual increase in the tonnage of the country engaged in *foreign* trade. The "Enrolled and Licensed Steam Tonnage," I take to indicate the progress made by the Americans in the navigation of their *inland* waters. To form an estimate of their coasting trade and canal navigation, we must take the "Enrolled and Licensed Sail Tonnage," which increased from 1,002,000 tons in 1845 to 2,036,000 tons in 1860. The "total tonnage" of the United States, in 1845, was returned at 2,417,000; and, in 1860, at 5,145,038 tons; and although neither of these figures may represent "tonnage" in our sense of the word, there can be no doubt that in the interval between 1845 and 1860 the real tonnage of America, whether for foreign, coasting, or inland trade, was more than doubled.

It is probable that the larger proportion of American vessels are what we denominate "small craft." But, however this may be, there can be no doubt that the Americans have gradually enlarged the size of their sea-going ships, and have constructed them from finer models. Their sailing vessels also are of highly increased sailing power. No people build their ships on better principles. Their skill in cutting

[1] "A deduction of at least 600,000 tons from American tonnage should be made for the duplicated tonnage of steam ferryboats, at Buffalo chiefly, in a less degree at Ogdensburg and Cape Vincent."—*Mr. Chase's Report on Foreign and Domestic Commerce,* p. 7.

Year.	Registered Sail Tonnage.	Enrolled and Licensed. Steam Tonnage.
1845	1,088,680	319,527
1846	1,123,999	341,606
1847	1,235,682	399,210
1848	1,344,819	411,823
1849	1,418,072	451,525
1850	1,540,769	481,005
1851	1,663,917	521,217
1852	1,819,744	563,536
1853	2,013,154	574,098
1854	2,238,783	581,571
1855	2,440,091	655,240
1856*	2,401,687	583,362
1857	2,377,094	618,911
1858	2,499,742	651,363
1859	2,414,654	676,005
1860	2,448,941	770,641
1861	2,540,020	774,596

* In 1856, all vessels sold to foreigners, lost or condemned, in *previous* years, were struck out of the Register, which reduced the aggregate tonnage in that and the following year by upwards of 680,000 tons.

sails, and in applying them to every description of craft, has always struck me as peculiarly remarkable.

The superior capacity and very fine character of the American merchant ships will be appreciated by all who remember the beautiful class of sailing vessels which were formerly on the New York and Liverpool stations, as what were called "Liners." Those vessels were the very best vessels of their class, and they no doubt acquired wide celebrity for American shipping. They are now superseded by English and other steam packets; but the fame of these celebrated vessels has enabled the Americans not only to possess themselves of the largest proportion of the emigration trade, but also to lay on lines of packets between Havre, Marseilles, Hamburg, Rio de Janeiro, Bahia, Panama, the West Indies, and various points both of the Atlantic and Pacific Oceans. They are also about to establish a regular communication with the ports of the Mediterranean, under arrangements with the Italian Government.

Some of these lines of communication are conducted by steamers; but generally, except for passenger conveyance, the Americans do not incline to steam in ocean navigation. They have comparatively few ocean steamers amongst their shipping. A few years ago, out of 110 steamers used in the trade of Great Britain with America, only

two were American. On the other hand, out of 1,200 sailing vessels in the trade, 960 were American. In 1860, the whole "Registered Steam Tonnage" of the United States (*i.e.*, the steam tonnage engaged in foreign trade) only amounted to 97,296 tons. In 1865, on the old admeasurement, it only amounted to 69,500 tons, and on the new admeasurement to 28,400 tons.

Recent events, however, may tend considerably to modify the proportion of sailing vessels and steamers in America. During the war, as is well known, the marine of the Republic has severely suffered; so much so that the returns for 1864 show upwards of *a million* less registered sailing tonnage belonging to the United States, than she possessed in 1860. This decrease is only in a small degree owing to captures. It most largely arises from the sales and transfers which American shipowners made of their property during the war, in order to avoid seizure. And not only was a proportion of their sea-going fleet transferred, but shipbuilding, for maritime purposes, excepting of small craft, was almost entirely suspended. At first sight it may appear that this must entail a great disadvantage on the United States, but I am by no means sure that such will be the result. Having got rid of her old stock of sailing ships, she will be likely to apply herself to the construction and acquisition of classes of vessels equal to those of other nations, and I should not be surprised in a few years to find the Americans chiefly employing large steamships in their ocean navigation.

At the recent Detroit Commercial Convention, it was stated by Mr. H. A. Hill, a delegate from Boston, that "at the present time there are twelve Steam Ship Companies employed in the transit between Europe and the United States, none of which are American." At the outbreak of the American war, in 1861, there were only two or three American steamers in the European trade. Mr. Hill says that at New York the value of steam shipping is not appreciated as it ought to be. The Boston Board of Trade reports very much to the same effect. They regret the failure of several attempts which have been made to employ steam-vessels in Ocean navigation. They state that, in 1863, an effort was made at Boston to establish a line of American steamers between Boston and Liverpool, and a charter was obtained from the Massachusetts legislature incorporating the company under the designation of the "American Steam Ship Company." The project, however, fell through, from insufficiency of capital, the difficulties of the period, and, above all, from the want of steamers.

> "It was proposed either to purchase or to charter two or more steamers for the principal route; and a Committee of Directors spent much time and thought upon the subject. Correspondence with brokers in England was entered into, with reference to the capacity, adaptation, and value (either for purchase or charter) of vessels in Liverpool and on the Clyde. Careful inquiry was

also made on our own coast, with a similar purpose. But the directors failed to find, in this country, steamers suitable to the wants of the service; and, owing to the very high rates of charter at which steamships were held in Europe, there was no opportunity to negotiate to advantage there. They prudently declined, therefore, to hazard the ultimate success of the line, by placing upon the route ships which, by any deficiency of speed, size, or earnings, might disappoint the stockholders and the public.

"The difficulties in the way of *building* ships have been found no less perplexing than those which have thus far prevented purchase or charter. With the prices of labour and material much inflated, and with a pressure upon shipbuilders and machinists caused by the demand for governmental and other purposes, it has not been judged advisable to enter into contracts for construction." [1]

In this question of construction will, probably, be found one main difficulty attending the working of American steam intercourse with Europe. They cannot construct steamships in the United States to the same advantage that we can in Great Britain. Not only are our rates of wages less, but our steam ship-building yards on the Clyde, the Tyne, and the Mersey are situated close to the raw materials, the iron and the coal, required for the purposes of steamship construction. This circumstance must always give Great Britain an advantage over the United States in respect to navigation conducted by steamers. The first cost of our steamships always will be less: and the capital invested in them being less, of course they can be worked to advantage at lower rates. In addition to this, we derive, at present, a considerable advantage from the superior quality of the steam-coal with which our ships can be supplied.

The Boston Board of Trade concludes its report upon this subject by intimating its opinion that "*our foreign trade is not keeping pace with our advance in other respects.*" This opinion appears very generally to prevail in the United States, and if it is so, it is very desirable calmly to investigate the cause. Perhaps it may be found that some other nations have obtained an advantage over America, not from superior enterprise or skill, but from the adoption of different principles in foreign trading. Of late years, there has certainly been, in Europe, great expansion of view, and with that expansion greatly increased liberality in the mode of conducting commercial transactions. It may be doubted if the Americans have, in these respects, altogether advanced in proportion with the other great commercial nations of the world. It would be well that they should see to it. An American writer has well said, that nothing can injure American shipping but restrictions and limitations on American trade. And if the question

[1] Eleventh Annual Report of the Boston Board of Trade, p. 35.

is candidly examined by the light of their own experience, I think the people of the United States will see that this position is established.

11.[1] No single interest in the United States, fostered although it may be by legislation, can long prosper at the expense of other great interests. Nor can any important interests be crushed by unwise or unequal laws, without other interests being thereby prejudiced. For illustration: the people of the United States are naturally a commercial and maritime people—fond of adventure, bold, enterprising, persistent. Now, the disagreeable fact must be admitted, that, with unequalled facilities for obtaining the materials and with acknowledged skill in ship-building—with thousands of miles of seacoast, indented with the finest harbors in the world—with surplus products that require in their exportation a large and increasing tonnage—we can neither profitably build ships nor successfully compete with English ships in the transportation of our own productions. Twenty years ago it was anticipated that ere this the United States would be the first maritime power in the world. Contrary to our anticipations, our foreign commerce has declined nearly fifty per cent. within the last six years. The tonnage of American vessels engaged in the foreign carrying trade which entered United States ports was:

In 1860	tons.	5,921,285
In 1865		2,943,661
In 1866		3,372,060

The tonnage of such vessels which were cleared from the United States was:

In 1860	tons.	6,165,924
In 1865		3,025,134
In 1866		3,383,176

The tonnage of foreign vessels which entered our ports was:

In 1860	tons.	2,353,911
In 1865		3,216,967
In 1866		4,410,424

The tonnage of foreign vessels which were cleared was:

In 1860	tons.	2,624,005
In 1865		3,595,123
In 1866		4,438,384

[1] The *Merchant's Magazine and Commercial Review,* vol. lv, pp. 455-456. New York, 1866.

Editor's Note.—The *Merchants Magazine and Commercial Review* (known during the early years of its existence as *Hunt's Merchants Magazine* was first published in 1839 under the editorship of Freeman Hunt. In 1871 it was merged with the *Commercial and Financial Chronicle.* The files of this publication contain a wealth of accurate statistical and descriptive material on a great variety of subjects.

It is true that a large proportion of this diminution of shipping and ship-building was the effect of the war. The great destruction of merchant vessels by rebel cruisers not only induced sales to neutrals, but discouraged building. After the war, however, the scarcity of American vessels ought to have produced, and, but for a redundant currency and high taxes, would have produced activity in our ship-yards and a rapid increase of tonnage; but this has not been the case. The prices of labor and materials are so high that ship-building cannot be made profitable in the United States, and many of our ship-yards are being practically transferred to the British Provinces. It is only a few years since American ships were sought after, on account of their superiority and cheapness; and large numbers of vessels were built in Maine and other States on foreign account, or sold to foreigners, while, at the same time, our own mercantile marine was being rapidly increased. Now many of our ship-yards are abandoned, and in others very little activity prevails. It is true there has recently been some increase in our foreign tonnage, but a good part of this increase is apparent only, and is the result of the new rule of admeasurement. It is an important truth that vessels can be built very much cheaper in the British Provinces than in Maine. Nay, further, that timber can be taken from Virginia to the Provinces, and from these Provinces to England, and there made into ships which can be sold at a profit; while the same kind of vessels can only be built in New England at a loss, by the most skillful and economical builders. But the evil does not stop here; if the only loss was that which the country sustained by the discontinuance of ship-building, there would be less cause of complaint. It is a well established general fact, that the people who build ships navigate them, and that a nation which ceases to build ships ceases, of consequence, to be a commercial and maritime nation. Unless, therefore, the causes which prevent the building of ships in the United States shall cease, the foreign carrying trade, even of our own production, must be yielded to other nations. To this humiliation and loss the people of the United States ought not to be subjected. If other branches of industry are to prosper, if agriculture is to be profitable, and manufactures are to be extended, the commerce of the country must be restored, sustained and increased. The United States will not be a first-class power among the nations, nor will her other industrial interests continue long to prosper as they ought, if her commerce shall be permitted to languish.

The same causes—a redundant currency and high taxes—that prevent ship-building, tend to prevent the building of houses and even of manufactories. So high are prices of every description that men hesitate to build dwellings as fast as they are required, and thus rents are so advanced as to be oppressive to lessees, and the healthy growth of towns and cities is retarded. So it is in regard to manufactories. Mills which were built before the war can be run profitably, but so expensive are labor and materials that new mills cannot be erected and

put into operation with any prospect of fair returns upon the investment, unless upon the expectation that taxes will remain as they are and prices be sustained, if they are not advanced. The same causes are injuriously affecting agriculture and other interests which it is not necessary to particularize. It is everywhere observed that existing high prices are not only oppressing the masses of the people, but are seriously checking the development, growth, and prosperity of the country. It is not denied that the losses which the country has sustained of able-bodied men by the war is one cause of existing high prices; but mainly they are the result of a redundant currency and high taxes.

CHAPTER VIII

GROWTH OF MANUFACTURES: 1820 TO THE CIVIL WAR

IN THE face of serious competition for the use of capital and labor, the volume of American manufactures grew rapidly after the opening of the nineteenth century. Many factors contributed to this development. Among the more important were the Napoleonic Wars which temporarily eliminated English competition in the American market, the vast resources of the essential raw materials, a rapidly increasing domestic demand, and the protective tariff. Although Hamilton as early as 1791 had expressed great confidence in the industrial future of the United States,[1] doubts as to the ability of American industry to compete successfully with the more highly developed industries of Great Britain were not dispelled until much later. How false these pessimistic forebodings were is clearly shown in the unparalleled growth of American industry after 1820 (Nos. 1-6, 10-11). While serious industrial depressions occurred at fairly regular intervals, these proved in the long run more beneficial than harmful (Nos. 7-9).

General Condition of Manufactures—1820

1.[2] There are several parts of the United States where certain branches of manufactures are permanently fixed, without including those household productions, which are made to a great extent in every state in the Union. It is my purpose only, in answer to your inquiries, to tell you what has been done in the eastern division; to say something of the advantages it possesses for the prosecution of manufactures, and to remark upon some of the objections, that have been urged against them. In doing this, I do not intend to furnish you with details, to tell you the number of spindles or of triphammers that we have in motion. I have not the facts necessary for the purpose; I am not making statistical tables, but attempting only a general outline of our capabilities in this way.

We have furnished many proofs of the liability of theorists to make false calculations, and how frequently a successful practice will run counter to the most plausible reasonings of theory. Associations to

[1] See pp. 40-58.

[2] Tudor, William, *Letters on the Eastern States,* ed. 2, pp. 253-266. Boston, 1821. (Ed. I published 1820.) See note p. 155.

introduce any particular branch of manufacture rarely succeed; numerous instances may be cited of their failures. Two, among others in Boston, may serve as examples of the rest. The first was an attempt to introduce the manufacture of linen; Irish spinners and weavers were to be employed; a large, substantial building was erected; but after all the expense, it languished for only a short period before its extinction. Another was a manufactory of sail-cloth. The reasoning here was excellent; it was said that we could produce the hemp which would assist our agriculture; that the great quantity of shipping we employed in the fisheries, in the foreign and coasting trade, would always secure a certain demand; that the fabric was of so coarse a description, that little skill would be required, and it might at once be brought to perfection. The duck was made, and the usual certificates were given, after a fair trial, that by virtue of the kind of oil which was used in the weaving, it was less liable to mildew, and, in short, that it was decidedly superior to the European sail-cloth.—Yet the manufactory soon fell through.—At this very time, though we could not carry on a manufacture of this coarse material, very considerable quantities of thread-lace were made in the county of Essex; and it continued to be woven, till the modern patent lace drove it out of the market. So it was, contrary to obvious theory, that though we could not make cloth for the fisherman's sails, we did produce the lace-edging for his wife's cap. The manufactory of glass was introduced in the same way, and would probably have failed in turn, if the association had not been given up; and a few only of the proprietors joined with the principal workmen in carrying it on.

These associations, which, owing in part to the great facility of obtaining legislative acts of incorporation, have been remarkably multiplied of late years, make a considerable display of introducing manufactures; but it may be doubted, on the whole, whether they are productive of gain to the community. The stockholders commonly lose, but the people employed obtain their wages; the farmer profits by getting a greater demand for his produce, and some knowledge of manufacturing is obtained by the workmen, which furnishes them another resource of livelihood. Against these are to be placed the loss of the proprietors, and still more, the discouragement which is produced by unsuccessful attempts.

It might be wise policy in legislatures, in passing acts of incorporation, to imitate the English principle in regard to private banking; where to ensure care and responsibility in the transaction of their affairs, but a limited number of persons, five or six, are allowed to associate together; the consequence is, that each one puts in so much capital; that it becomes the main object of his attention, and his ruin would follow his personal negligence, or misconduct. This principle may perhaps take place in our banking system, in the course of time; but a modification of it might do good in our manufacturing establishments. The number of persons might be limited expressly, or effec-

tively, by making the value of each share much greater than it now is. Manufactures are never exposed, when properly conducted, to the wide chances of commerce; they can never expect its extravagant gains, or its sudden losses. Their gain is moderate, but certain. The greatest attention to all the details, the closest economy, the constant personal watchfulness of the proprietor, are necessary to their success. Now, in one of these numerous associations, where each proprietor holds only a few hundred dollars in the stock, and where the managers derive their emolument chiefly from the wages for superintendence; it is almost impossible that the establishment should be carried on profitably, except during some period of temporary interruption in foreign competition. The state at large should interpose its guardianship for the community, in cases where the motive is not sufficiently strong, to expect a prudent watchfulness from the individual. A sudden excitement may produce a mania in the public mind for any particular pursuit,—an act of incorporation is asked for, and obtained of course, —each individual adventures only a moderate sum, and considering it a kind of lottery, feels little solicitude about the event; but the aggregate of property involved is very important, and the loss is a serious injury to the state. The government might then exercise a kind of negative prohibition, and by requiring a larger stake from the adventurers, secure them and the public, against a rash undertaking or improvident management.

The truth of some of these remarks is very strongly supported by the cotton manufactory at Waltham, near Boston; one of the largest and best managed in the United States. This was begun at a period when manufactures were depressed, and many of the establishments were discontinued. One in the immediate vicinity, of considerable extent, had ceased working. Under these discouraging appearances, this manufactory was set on foot by five or six gentlemen, who had a sufficient capital to meet the delays attendant upon an incipient establishment, and in both their purchases and sales, to take advantage of the market. They had a large stake in the undertaking, and every thing was done with precaution and solidity. They first secured a water power, which gave them an ample, certain supply at all seasons. They then erected large substantial buildings. Having procured the best mechanics, they began by degrees to put up their machinery, making it certain, by experiment, that they were of the best and most improved kind. Their machinery is, consequently, superior to any other in the United States, and is not surpassed by the most perfect in England. They now consume about 400,000 pounds of cotton annually, and keep nearly 200 looms, moved by water, in constant operation.[1] This manufactory is a very interesting one, because it proves decisively, that, with sufficient capital and proper management, the manufacture of cotton may be carried on with advantage.

[1] Additional buildings and machinery have been since erected, that have nearly doubled its extent.

The cotton manufactories are numerous; they are scattered over every part of these states—many of them small, with only four or five hundred spindles, and from that number up to ten or fifteen thousand; these are, in almost every instance, the property of incorporated companies; most of them were hastily erected, and their machinery is not very good. The aggregate of their produce is very considerable, though very few of them continue in full steady operation. Their capital is commonly too limited, to enable them to transact their business advantageously. They are often obliged to make forced sales of their goods, and a rise in the price of the raw material consumes all their profits, and forces them to suspend their work; of course, they cannot be expected to make any great improvement, while liable to such interruptions. Still, this branch of manufactures for the production of coarse kinds of goods, may be considered as permanently established here.

The manufactures of iron, both wrought and cast, are largely extended in this quarter. Some iron is made from the ore, but by far the largest quantity consumed, is imported from Russia, Sweden, and England. The chief articles of cast iron, are made here to the exclusion of foreign ones. Many of the coarser articles of wrought iron are also made in large quantities, such as nails, shovels, edge tools, &c. We have, by necessity, been obliged to manufacture machinery, since it was not allowed to be exported from England. We have many excellent workmen in this line, and the most delicate and difficult machinery is made in perfection, from a stocking loom, or a card machine, up to a steam engine; of these last we have two or three manufactories; and these invaluable machines are now getting more and more into use.

The manufactures of leather are all extensively established, and many of them brought to a high degree of perfection. In the preparation of skins, we have not yet produced the finest kinds of Morocco or Russia leather, but we are daily making a progress towards doing so. In some of the manufactures of which leather is the principal material, our produce for a long period has been very considerable; others have been more recently introduced, but all of them may vie with any foreign productions. Boots, shoes, trunks, saddlery, and bookbinding, furnish a large amount in our exports to the rest of the Union. Every article of any importance made from skins, except gloves, may be considered as one of our permanent manufactures. To these may be added hats, both from wool and fur, of which large quantities are made, though we still import many of the finer description from Europe.

Our woollen manufactures may yet be considered in their infancy, though their produce is very considerable. Of the coarser kind of woollens, a very considerable proportion of what is worn in the country, is home made. The quantity has been increased by the saving of labour, from the establishment of carding machines, which are every where to be found. Several respectable manufactories, for the production of the finer kinds of cloths and cassimeres, have been got up

within a few years; and some of the specimens they have shown will bear a comparison with almost any productions of the European looms. These manufactories are gradually increasing, and we may look forward to no very distant period, when they will more than supply our own wants. Their success is connected with the improvement of our breeds of sheep; this has commenced with the introduction of the Spanish breeds: but there are some other races that are greatly wanted, and which will no doubt be had, ere long, in spite of foreign prohibition.

Besides these principal branches of manufactures, there are many others in extensive operation. Among these, glass may be cited, as having been so early brought to rival the most beautiful articles of English ware. There are glass manufactories in different places; those in Boston are the principal ones; the finest and most difficult kinds of cut glass can now be procured at them. Manufactures of all kinds of cabinet work, of musical instruments, of tin-ware, &c. &c. are to be found in different places, some of these in every village. There is no considerable branch of manufactures which has not some establishment here, excepting silk. The climate is favourable to the mulberry-tree, and no doubt silk will be produced hereafter. Samples indeed have been shown in different places; but they are as yet too inconsiderable to be numbered among our fabrics.

It seems, then, that there can be no doubt of the practicability of our becoming manufacturers, and the expediency is I presume growing daily more evident. With the fullest belief, however, of the utility and necessity of manufactures, I am not anxious for the growth of large manufacturing towns, and the kind of population that exists in them in Europe; though it will naturally come in the course of things, no wise or benevolent man would wish to advance it. Our manufacturing population is now blended with that of agriculture; the labourers in the former are drawn from the latter, and frequently return to it for a time. This preserves their health and energy; in this way we may go on to a great increase of manufactures, till we are able to supply as much as we consume, though we may always find it convenient to import some articles. But to have large manufacturing cities, swarming with labourers, who are mere spinning *mules* and *jennies*,—who are reduced by competition to the minimum of subsistence, and even this rendered precarious by the change of fashion of foreign prohibition;—such a state of things I do not wish to see existing, while there is any land left to give our population the means of subsistence. Indeed, there is no fear that it will happen for many generations to come.

Let me point out to your notice, one or two of the advantages we possess, for the establishment of manufactures. Those abroad who fear our competition, have commonly solaced themselves with the belief that we never could carry on manufactures extensively, because labour was too high; the same idea has been held up here, by those who have considered the question superficially, or with adverse prejudices. Now, it is remarkable, that in all those numerous branches of manufactures,

in which foreign productions have been altogether superseded, except in a few cases of luxury or fashionable caprice—it is labour, and labour of the dearest kind, that is almost exclusively employed. For instance, boots, shoes, hats, saddlery, &c. &c.;—in these and many other articles, machinery cannot be used, and the work is almost wholly performed by men.—It is not the price of labour, but the want of capital, that prevents our success. We manufacture for ourselves much the greater part of what we consume, excepting those fabrics which are principally made by machinery. The labour of men is dearer than it is in England, but the labour of women and children bears nearly the same price in both countries; and in the great manufactories of cotton, and many others, the number of men who are employed is comparatively small. Whenever persons of capital shall choose to employ it in manufactures, and give their personal attention to their concerns, it will be found that the price of labour will be no impediment.

. . . . . .

The present produce of our manufactures, is of the most useful kind, and the best calculated for securing them a preference with the consumer. They are principally the coarse kinds of goods, and are much more substantial than European or India merchandise of the same prices. They have, therefore, obtained a character in this respect, which makes them always in demand. The public gain too, in a general way, since these domestic productions are so much more durable. This substantial quality they can, in most articles, always maintain;—in cotton stuffs, for instance, since the raw material comes to them so much cheaper, but in those cloths where the quantity of material employed forms a great part of the price, the foreign manufacturer, who is obliged to purchase it at a much higher rate, must make his fabrics slighter, and thus very inferior in quality;—trying to obtain a sale by a superior finish and appearance. Our fabrics commence with acquiring a reputation for durability; they will gradually add that of variety and elegance.

There are no people more ingenious in the use and invention of machinery, no country more prolific in patents, than the one under consideration. Good mechanics are to be found in every one of the mechanic arts, and the improvements they have made in some old, and the invention of many new instruments, are strong proofs of their skill and enterprise. These are not shown merely in the common tools in use in various trades, but in the most complicated and useful machines. Such, for instance, are the card and nail machines, which are so extensively used in the United States. These are entirely of their own invention. They have also improved the machines used in Europe, in the process of spinning and weaving;—though the machinery was considered almost perfect there, they have made many ameliorations. In this department, also, we have an advantage over the European manufacturer;—no resistance is made here to the introduction of any machinery; every kind of labour-saving machine is eagerly sought

after, and new ones are constantly coming into use. In Europe, the manufacturer is often limited in this respect; he is often afraid to make use of machinery that would be of essential service to him. Machinery that is used in one country, sometimes cannot be brought into another, without producing a riot among the workmen. Within a few years the most serious mischief, alarming and long continued disturbances, have arisen from this source. Our manufacturers have no fears of this kind to encounter.

Evidences of the Growth of American Manufactures—1820-1840

2.[1] One circumstance which has contributed to diminish the increase both of imports and exports, is the growth of manufactures, which has at once enlarged the home market for the raw materials, and lessened the demand of imports.

Official estimates of the manufactures of the United States were taken both in 1810 and 1820, but there were so many inaccuracies in both, and especially the last, that any inferences drawn from them are to be regarded rather as probably conjectures than well founded estimates.

According to a digest of the returns made by the marshals in 1810 of the manufactures of the United States, they amounted to $127,694,602. A further estimate was afterwards made by the acting Secretary of the Treasury of the omissions, by which the amount was extended to $172,762,676. But inasmuch as there might also be great omissions in the returns of 1840, it would seem safer to compare the returns that were actually made, more especially as Mr. Gallatin had, from those of 1810, estimated the annual amount of manufactures at only 120 millions of dollars.

It seems, however, that each of these estimates contains items that are not comprehended in that of 1840. These, then, will be deducted before the two are compared.

The following articles in the returns of 1810 were not, in 1840, comprehended in the estimate of manufactures [see top of page 227].

Comparing the same articles of manufacture in 1810 and 1840, the increase, from $59,574,660 to $186,079,592, is 212 per cent in thirty years, or a decennial increase of 46 per cent.

The returns of manufactures made by the marshals in 1820 were still more imperfect and inaccurate. In whole counties there were no returns whatever, and in almost all of them there were considerable omissions. In some cases, where capital to a large amount appears to be employed, no product is stated. In not a few large establishments the proprietors refused to answer the marshal's inquiries. In many, it should be added, the manufactures are represented to be in a languishing condition.

[1] Tucker, George, *Progress of the United States in Population and Wealth in Fifty Years, as Exhibited by the Decennial Census,* pp. 206-208. New York, 1843. See note pp. 158-159.

Amount, according to the marshal's returns,			$127,694,602
Fabrics made in families,	$16,491,200		
Products of fulling-mills,	4,117,308		
" of carding-mills,	1,837,508		
Bar and pig iron,	6,081,314		
Tanneries,	8,338,250		
Salt,	1,149,793		
Fish oil,	240,520		
Lead in pigs,	26,720		38,332,613
			$ 89,361,909
Deduct for raw materials one-third,			29,787,329
			$ 59,574,680
The annual product of the manufactures of 1840, was			239,752,227
To be deducted, the following articles not comprehended in the digest of 1840, viz: – –			
Bricks and lime, two-thirds of	$9,736,945	$6,491,390	
Houses, two-thirds of	41,917,401	28,044,934	
Mill manufactures, one-fourth of	76,545,246	19,136,311	$53,672,635
			$186,079,592

The gross annual amount of the manufactures, so far as it can be gathered from such defective returns, appears to be only $36,115,000, and the capital employed in them to $41,507,000. As this branch of industry is known to have been steadily advancing from 1810 to 1815, so great a falling off in five years as is indicated by the returns of 1820, seems to be utterly inadmissible. Without doubt it must have greatly declined after the peace of 1815, which at once raised the price of raw materials and lowered that of manufactures; but after making large allowance for these circumstances and the omissions in the returns of 1820, they do not seem sufficient to account for the great apparent difference, and a part of it seems not improbably to be referred to an over valuation of the manufactures in 1810.

Perhaps the best mode of comparing the manufactures of 1820 with those of 1840 is to compare the number of persons employed in those years; and the rather as this part of the returns is the most complete, and in the most manufacturing States makes some approach to accuracy. The number employed in 1820 was 36,705 men, 5,812 women, and 13,779 children—in all 56,296. The whole number of persons employed in 1840 was 455,668—that is, as 100 to 809; which supposes the extraordinary decennial increase of 284 per cent. After making the most liberal deduction from this estimate for the omissions in the returns of 1820, the remainder shows an advancement in this branch of industry that is without example. As a further evidence of the same fact, we find that while no other branch of our domestic exports has

ever doubled since 1820, that of manufactures has increased six fold; that is, from $2,342,000 to $12,868,840 in 1840, and $13,523,072 in 1841.

3.[1] In manufacturing industry, the States differ far more than in agriculture. The New England and Middle States, containing less than two-fifths of the whole population, possess more than three-fourths (76.3 per cent) of the manufactures. The manufactured products of New England exceed those of its agriculture by nearly a tenth. Those of Massachusetts alone exceed in value those of all the Western States together, and are nearly thrice as great as those of the four Southern States united. This diversity is to be referred principally to the different densities of population in the States, and in some degree to the slave labour of one-half of them, which, untutored as it now is, seems suited only to the greater simplicity of agricultural operations.

The cheapness and abundance of provisions and raw materials (including coal) in the Northwestern States, must eventually make them the seats of flourishing manufactures, and this, too, before they have attained that very dense population their fertile soil is destined to support. Even with their present numbers, the census affords evidence of their particular adaptation to this branch of industry. The manufactures of Ohio alone already nearly equal in value those of the four Southern States.

The profits of commerce amount to something more than an eleventh of the whole annual product, if they have not been estimated too high at 25 per cent on the capital employed. They constitute more than a tenth of the whole products in the Middle, the Southwestern, and the Northwestern States; about a fourteenth in New England; and a fifteenth in the Southern States.

Mining contributes but 4 per cent of the whole national product. Nearly two-thirds of the whole (64.3 per cent) are in the Middle States. More than half the remainder is in the Northwestern States.

The products of the forest constitute 1½ per cent of the whole. They are furnished by each division of the States nearly in proportion to the population, except by the Southwestern States, where they are little more than the half of 1 per cent of the products of that division.

The products of the fisheries, the lowest in the scale as to direct gain, barely exceed 1 per cent of the whole, and more than three-fourths of them (78.6 per cent) are contributed by the New England States. From this branch of industry the Southwestern States derive nothing, and the Northwestern next to nothing. It is of far greater importance in a national view, as affording an excellent nursery for seamen, than as a source of gain, except to the New England States, where it yields 5 per cent of their whole annual product.

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[1] *Ibid.*, pp. 199-200. See note pp. 158-159.

Manufacture of Cotton Textiles

4.[1] The growth of the cotton manufacture in America has been rapid. The first cotton mill was erected in Rhode Island in 1791, but as late as 1807 there were not in the Union more than 15 mills, producing about 30,000 lbs. of yarn in a year. The embargo of 1808, the differences with England, and, above all, the war, gave a great stimulus to the manufacturing interest, and led the Americans to indulge the desire of supplying themselves with the cottons and woollens their population required. High protecting duties were therefore established, which forced the growth of manufactures. In 1810, the number of cotton mills had increased to 102, and in 1831 to 795. The quantity of cotton worked in the United States was 500 bales in the year 1800; 1000 bales in 1805; 10,000 bales in 1810; 90,000 bales (or 27,000,000 lbs.) in 1815; and 77,557,316 lbs. in 1831. The exports of American cotton manufactures are inconsiderable, and do not seem to be on the increase: in 1829 they amounted to 1,259,457 dollars; in 1830 to 1,318,183 dollars; and in 1832 to 1,229,574 dollars. Of the latter amount, the printed or coloured cottons were 104,870 dollars, white cottons 1,052,891 dollars, and other kinds 71,813 dollars.

The following particulars as to the extent of the manufacture in 1831 are drawn from the Report of a Committee of Congress in 1832, and founded on returns carefully obtained from the different states:—

In twelve states there are.....	mills	795
" " " " "	spindles	1,246,503
" " " " "	looms	33,506
The weight of cotton consumed.....		77,557,316 lbs.
Allowing 2 oz. per lb. for loss.....		9,694,664
Total weight of yarn produced.....		67,862,652
Weekly amount.....		1,305,051

Averaging 16¾ oz. per spindle weekly.

If the 33,506 looms were employed, and the whole 1,305,051 lbs. of yarn manufactured, each loom must have consumed at an average 39 lbs. weekly, shewing that the goods manufactured were of a very heavy description. It also appears from statements made by the same Committee, that

The number of males employed was.....	18,539
" " " females " "	38,927
Total number employed in spinning and manufacturing..	57,466

[1] Baines, Edward, *History of the Cotton Manufacture in Great Britain . . .*, pp. 510-511, London.

Editor's Note.—Sir Edward Baines (1800-1890) was an English statesman and journalist. His account of the cotton industry is comprehensive and accurate.

5.[1] I visited the corporate factory-establishment at Waltham, within a few miles of Boston. The Waltham Mills were at work before those of Lowell were set up. The establishment is for the spinning and weaving of cotton alone, and the construction of the requisite machinery. Five hundred persons were employed at the time of my visit. The girls earn two, and some three, dollars a-week, besides their board. The little children earn one dollar a-week. Most of the girls live in the houses provided by the corporation, which accommodate from six to eight each. When sisters come to the mill, it is a common practice for them to bring their mother to keep house for them and some of their companions, in a dwelling built by their own earnings. In this case, they save enough out of their board to clothe themselves, and have their two or three dollars a-week to spare. Some have thus cleared off mortgages from their fathers' farms; others have educated the hope of the family at college; and many are rapidly accumulating an independence. I saw a whole street of houses built with the earnings of the girls; some with piazzas, and green venetian blinds; and all neat and sufficiently spacious.

The factory people built the church, which stands conspicuous on the green in the midst of the place. The minister's salary (eight hundred dollars last year) is raised by a tax on the pews. The corporation gave them a building for a lyceum, which they have furnished with a good library, and where they have lectures every winter,—the best that money can procure. The girls have, in many instances, private libraries of some merit and value.

The managers of the various factory establishments keep the wages as nearly equal as possible, and then let the girls freely shift about from one to another. When a girl comes to the overseer to inform him of her intention of working at the mill, he welcomes her, and asks how long she means to stay. It may be six months, or a year, or five years, or for life. She declares what she considers herself fit for, and sets to work accordingly. If she finds that she cannot work so as to keep up with the companion appointed to her, or to please her employer or herself, she comes to the overseer, and volunteers to pick cotton, or sweep the rooms, or undertake some other service that she can perform.

The people work about seventy hours per week, on the average. The time of work varies with the length of the days, the wages continuing the same. All look like well-dressed young ladies. The health is good; or rather, (as this is too much to be said about health any where in the United States,) it is no worse than it is elsewhere.

These facts speak for themselves. There is no need to enlarge on the pleasure of an acquaintance with the operative classes of the United States.

[1] Martineau, Harriet, *Society in America,* vol. ii, pp. 57-59. New York, 1837. See note p. 174.

6.[1] Went twenty-six miles to the north of Boston [November 15, 1841] by an excellent railway, to the manufacturing town of Lowell, which has sprung up entirely in the last sixteen years, and now contains about 20,000 inhabitants. The mills are remarkably clean, and well warmed, and almost all for making cotton and woolen goods, which are exported to the West. The young women from the age of eighteen to twenty-five who attend to the spinning-wheels, are good-looking and neatly dressed, chiefly the daughters of New England farmers, sometimes of the poorer clergy. They belong, therefore, to a very different class from our manufacturing population, and after remaining a few years in the factory, return to their homes, and usually marry. We are told that, to work in these factories is considered far more eligible for a young woman than domestic service, as they can save more, and have stated hours of work (twelve hours a day!), after which they are at liberty. Their moral character stands very high, and a girl is paid off, if the least doubt exists on that point. Boarding-houses, usually kept by widows, are attached to each mill, in which the operatives are required to board; the men and women being separate. This regard for the welfare and conduct of the work-people when they are not on actual duty is comparatively rare in England, where the greater supply of labour would render such interference and kind superintendance much more practicable. Still we could not expect that the results would be equally satisfactory with us, on account of the lower grade of the operatives, and the ignorance of the lower classes in England. In regard to the order, dress, and cleanliness of the people, these merits are also exemplified in the rural districts of Lancashire, and it is usually in our large towns alone, that the work-people are unhealthy and squalid, especially where a number of the poor Irish live crowded together in bad dwellings.

The factories at Lowell are not only on a great scale, but have been so managed as to yield high profits, a fact which should be impressed on the mind of every foreigner who visits them, lest, after admiring the gentility of manner and dress of the women and men employed, he should go away with the idea that he had been seeing a model mill, or a set of gentlemen and ladies, playing at factory for their amusement. There are few children employed, and those under fifteen are compelled by law to go to school three months in the year, under penalty of a heavy fine. If this regulation is infringed, informers are not wanting, for there is a strong sympathy in the public mind with all acts of the legislature, enforcing education. . . .

[1] Lyell, Sir Charles, *Travels in North America, Canada, and Nova Scotia,* ed. 2, vol. i, pp. 117-119. London, 1855. Ed. 1 appeared in 1845.

Editor's Note.—As a geologist Sir Charles Lyell (1797-1875) ranks among the best of his time. In 1831 he was appointed to a professorship at King's College, London. On several occasions he traveled and lectured in the United States. While interested primarily in geology, his observations on social and economic life are interesting and instructive. Lyell was a keen observer and an excellent chronicler.

The Crisis of 1837

7.[1] In the latter part of 1836 several large failures occurred in Great Britain. This was the beginning of a crisis which convulsed both Europe and America. Early in May one bank in New York City and three in Buffalo failed. On the 10th of May all the banks in New York suspended specie payments, under a law passed by the legislature allowing them to suspend for one year. The banks throughout the country soon followed their example. The distresses of the year were aggravated by a failure of the wheat crop. The New York banks being required by law to resume May 10, 1833, contracted their circulation as rapidly as possible. It was reduced over $12,000,000, or one-half, during the year 1837. The banks of New England were in a bad condition, the best of them having only $1 in specie to redeem $11 in notes. A meeting of bank delegates in New York was called for November 27, 1837, to confer in regard to resumption, but the United States Bank refusing, the convention did not meet. The New York Banks resumed on the 10th of May, 1838, and nearly all the banks throughout the country soon followed, at least nominally, except those of Philadelphia. Towards the end of the year the Bank of England again became involved in trouble, producing the usual effect in America.

8.[2] We have already noticed the attempts made in the spring of 1837, by the Philadelphia Bank of the United States, to avert the mercantile crisis which then began to display itself, by the issue of its bonds or post notes, which were exchanged for mercantile paper, and sent abroad as a remittance. This was the beginning of a course of measures, which have ended in the temporary prostration of that bank, and which will perhaps result in winding up its affairs.

At the commencement of the crisis of 1837, the position of the Bank of the United States was very peculiar. All the funds, property, debts and credits of the old bank had been transferred to the new bank, at a valuation sufficiently high, and the new bank had contracted to pay all the obligations and claims to which the old bank was liable. The branches of the old bank, with but three or four exceptions, had been wound up, by means of a sale of all their outstanding claims upon a long credit, of one, two, three, and four years, either to individuals, who were thought to be responsible, or to some of the new banks which had sprung up so rapidly during the year 1836. All these credits had been transferred to the new bank, and formed no inconsiderable portion of its capital. The Bank of the United States had therefore a great interest in sustaining the credit of the Western and South-western

[1] Berkey, William, *The Money Question,* p. 150. Grand Rapids, Michigan, 1876. Editor's Note.—*The Money Question,* by William Berkey (1823-1902), went through a number of editions. While not always accurate, it is replete with information gathered from many and varied sources.

[2] Hildreth, R., *Banks, Banking and Paper Currencies* (in three parts), pp. 101-106. Boston, 1840. See note p. 28.

banks, and in preventing any such commercial crisis as should disable its Southern and Western debtors from fulfilling their contracts.

Hence the earnest efforts of the bank, in the spring of 1837, to ward off the coming calamity by the issue of its bonds or post notes, as above mentioned. Those bonds were no doubt sold at a high nominal profit, but as the paper received for them was the paper of houses, of which a large number afterwards stopped payment, the operation must have been in the end a very losing one.

In the autumn of 1837, the Bank of the United States entered upon a new course of operations, by way of sustaining its debtors at the South, the result of which also proved very disastrous. The commercial crash in the spring of 1837 had destroyed all those great cotton brokerage houses in New Orleans, through whose agency, for several years past, the cotton trade of that part of the Union had principally been carried on, and which had exerted themselves greatly to raise and keep up the price of cotton. This machinery destroyed, the price of cotton sunk at once to a very low ebb. Now it was considered, that cotton formed the principal means of the South for the discharge of its debts, and that the sale of that article below its real and actual value was so much dead loss to the country. Proposing therefore to put things right in this particular, and to afford the planters such facilities as would save them from the necessity of sacrificing their produce, the bank stepped forward, through its agents, and offered advances upon cotton, provided the bills of lading were endorsed over to its agents in Liverpool, so that the cotton might be held as security for repayment of the advance. This offer was largely accepted, and it produced an immediate and very perceptible effect upon the price of the article.

Thus far, there was nothing blamable in the conduct of the bank. Advances like those we have described are authorized by the charter of the bank, and are wholly within the regular rules of banking. Similar advances have often been made by the Bank of England, and a very large proportion of the entire business of those great London banking houses, known as the American Houses, is carried on in this way. Nevertheless, it must be confessed, that this sort of business is of a dangerous character, and the Bank of the United States was almost immediately guilty of an indiscretion, which rendered this business highly ruinous. Instead of confining itself to a moderate advance, such as the actual value of the article might justify, it made very extravagant and unreasonable advances, in hopes of re-establishing the speculative prices of 1835 and 1836. What was worse yet, its example was immediately followed by a large number of the South-western banks, which thus, instead of curtailing their already far too extended business, entered at once on a reckless career of new speculations. This was but the natural result of the suspension of specie payments, which, by removing the only certain check upon extravagance and speculation,

thus furnished to the Bank of the United States, and to all those banks which followed its example, the means and opportunity to involve themselves in new troubles.

It is not therefore to be wondered at, that, at the bank convention held at New York near the end of the year 1837, the United States Bank, and all the banks in its interest, were most decidedly hostile to fixing any day for the resumption of specie payments, in which project, by the help of the Boston banks, they were successful, having procured an adjournment of the convention till the April following. But when April came, the United States Bank, and the other banks which had followed its example, were still less ready to resume than before. Being exceedingly pressed however by the New York banks, which had determined to resume immediately, and by public opinion, which was clamorous out of doors, the convention, a majority of which was under the influence of the United States Bank, voted to resume the January following. In this vote the Boston banks again concurred, notwithstanding the New York policy had gained, since the former meeting of the convention, a strong hold among them, and very active preparations for a resumption had been making.

When the New York banks resumed, in May, Mr. Biddle saw fit to address a letter on that subject to John Q. Adams, a most ill-judged document, which first betrayed to a suspicious public the precarious situation of the bank, and the false principles upon which it was conducted. No one could read that letter without being perfectly satisfied that, however adroit Mr. Biddle might be in the routine of practical banking, he was totally ignorant of, or at least, had seen fit totally to renounce, the only safe principles upon which banking operations can be conducted.

The energetic conduct of the New York banks settled the question of resumption. All the rest, however reluctantly, found themselves obliged to follow, and, as we have already seen, the nominal resumption, with some slight exceptions, was complete by January, 1839.

Meanwhile, during all the earlier part of the year 1838, the cotton operations of the United States Bank, and of other southern banks, had been going on, and in order to sustain them, the Bank of the United States had found itself obliged to issue a vast quantity of post notes, first in Europe, and when that market was glutted, in this country also.

The post note system is almost certain to end in the stoppage of every bank that adopts it. And the reason is obvious; for it subjects the bank to the burden of sustaining *two* circulations, one, the regular circulation of its notes, payable on demand, the other, a circulation of post notes, which, after they once begin to fall due, are just as pressing, and on some accounts even more so, than the notes payable on demand. It may be said, no doubt, that the issue of post notes is pretty much the same thing as allowing interest on deposits, and cannot therefore be so dangerous as is above represented. The reply

is, that even the allowance of interest on deposits is a hazardous operation, not adopted by the Bank of England, or by any of the London bankers, but an operation much less dangerous than the issue of post notes, because many circumstances combine to limit the extent to which it can be carried, while the issue of post notes is only restrained by an absolute glut of the market.

It is said, and is probably true, that the United States Bank made great advances to some of the South-western banks, to enable them to resume payment on the first of January, 1839. If so, the money was thrown away, for, with but few exceptions, the resumption of all those banks was merely nominal. They withdrew from circulation their notes payable on demand, and issued circulating post notes in their stead, which post notes, when they became due, and were presented for payment, were suffered to be protested.

With the closing up of the crop of 1838, the Bank of the United States is understood to have abandoned the cotton business; but as the post notes and other paper which had been issued to sustain it, began to fall due after the middle of the year 1839, that institution found itself subjected to very severe pressure. Cotton had greatly fallen, state stocks were unsalable, and post notes could be negotiated no longer. Failure was inevitable, but the bank was resolved not to fail alone, but, as it were, like Samson, to carry with it the pillars of the whole commercial edifice, and to involve the country, if possible, in the horrors of a new suspension, a suspension, had it taken place, of unlimited duration. For this purpose it plotted with the Girard and Schuylkill Banks, two institutions worse off, if possible, than itself, and frightened the other banks of Philadelphia into a suspension, against their will and against their judgment. This evil example was rapidly followed throughout the entire South, and but for the wise and intrepid honesty of the New York Banks, which were resolved not to be frightened nor bullied into a new suspension, it would have been as rapidly followed throughout the entire country.

9.[1] The history of trade in the United States for the last three or four years affords the most convincing evidence that our present condition is chiefly to be attributed to overaction in all the departments of business—an overaction deriving, perhaps, its first impulses from antecedent causes, but stimulated to its destructive consequences by excessive issues of bank paper and by other facilities for the acquisition and enlargement of credit. At the commencement of the year 1834 the banking capital of the United States, including that of the national bank, then existing, amounted to about $200,000,000, the bank notes then in circulation to about ninety-five millions, and the loans and

[1] Van Buren, Martin. Special Session Message, September 4, 1837. With a few verbal changes (and changes in punctuation) the text here reprinted follows that of the edition compiled by E. Williams—*The Addresses and Messages of the Presidents of the United States.* Vol. 2. New York, 1846, pp. 1053-1055.

discounts of the banks to three hundred and twenty-four millions. Between that time and the 1st of January, 1836, being the latest period to which accurate accounts have been received, our banking capital was increased to more than two hundred and fifty-one millions, our paper circulation to more than one hundred and forty millions, and the loans and discounts to more than four hundred and fifty-seven millions. To this vast increase are to be added the many millions of credit acquired by means of foreign loans, contracted by the States and State institutions, and, above all, by the lavish accommodations extended by foreign dealers to our merchants.

The consequences of this redundancy of credit and of the spirit of reckless speculation engendered by it were a foreign debt contracted by our citizens estimated in March last at more than $30,000,000; the extension to traders in the interior of our country of credits for supplies greatly beyond the wants of the people; the investment of $39,500,000 in unproductive public lands in the years 1835 and 1836, whilst in the preceding year the sales amounted to only four and a half millions; the creation of debts, to an almost countless amount, for real estate in existing or anticipated cities and villages, equally unproductive, and at prices now seen to have been greatly disproportionate to their real value; the expenditure of immense sums in improvements which in many cases have been found to be ruinously improvident; the diversion to other pursuits of much of the labor that should have been applied to agriculture, thereby contributing to the expenditure of large sums in the importation of grain from Europe—an expenditure which, amounted in 1834 to about $250,000, was in the first two quarters of the present year increased to more than $2,000,000; and finally, without enumerating other injurious results, the rapid growth among all classes, and especially in our great commercial towns, of luxurious habits founded too often on merely fancied wealth, and detrimental alike to the industry, the resources, and the morals of our people.

It was so impossible that such a state of things could long continue that the prospect of revulsion was present to the minds of considerate men before it actually came. None, however, had correctly anticipated its severity. A concurrence of circumstances inadequate of themselves to produce such widespread and calamitous embarrassments tended so greatly to aggravate them that they can not be overlooked in considering their history. Among these may be mentioned, as most prominent, the great loss of capital sustained by our commercial emporium in the fire of December, 1835—a loss the effects of which were underrated at the time because postponed for a season by the great facilities of credit then existing; the disturbing effects in our commercial cities of the transfers of the public moneys required by the deposit law of June, 1836, and the measures adopted by the foreign creditors of our merchants to reduce their debts and to withdraw from the United States a large portion of our specie.

However unwilling any of our citizens may heretofore have been to assign to these causes the chief instrumentality in producing the present state of things, the developments subsequently made and the actual condition of other commercial countries must, as it seems to me, dispel all remaining doubts upon the subject. It has since appeared that evils similar to those suffered by ourselves have been experienced in Great Britain, on the Continent, and, indeed, throughout the commercial world, and that in other countries as well as in our own they have been uniformly preceded by an undue enlargement of the boundaries of trade, prompted, as with us, by unprecedented expansion of the systems of credit. A reference to the amount of banking capital and the issues of paper credits put in circulation in Great Britain, by banks and in other ways, during the years 1835, and 1836 will show an augmentation of the paper currency there as much disproportioned to the real wants of trade as in the United States. With this redundancy of the paper currency there arose in that country also a spirit of adventurous speculation embracing the whole range of human enterprise. Aid was profusely given to projected improvements; large investments were made in foreign stocks and loans; credits for goods were granted with unbounded liberality to merchants in foreign countries, and all the means of acquiring and employing credit were put in active operation and extended in their effects to every department of business and to every quarter of the globe. The reaction was proportioned in its violence to the extraordinary character of the events which preceded it. The commercial community of Great Britain was subjected to the greatest difficulties, and their debtors in this country were not only suddenly deprived of accustomed and expected credits, but called upon for payments which in the actual posture of things here could only be made through a general pressure and at the most ruinous sacrifices.

In view of these facts it would seem impossible for sincere inquirers after truth to resist the conviction that the causes of the revulsion in both countries have been substantially the same. Two nations, the most commercial in the world, enjoying but recently the highest degree of apparent prosperity and maintaining with each other the closest relations, are suddenly, in a time of profound peace and without any great national disaster, arrested in their career and plunged into a state of embarrassment and distress. In both countries we have witnessed the same redundancy of paper money and other facilities of credit; the same spirit of speculation; the same partial successes; the same difficulties and reverses, and at length nearly the same overwhelming catastrophe. The most material difference between the results in the two countries has only been that with us there has only occurred an extensive derangement in the fiscal affairs of the Federal and State Governments, occasioned by the suspension of specie payments by the banks.

Survey of Industrial Growth: 1850 to 1860

10.[1] The returns of MANUFACTURES exhibit a most gratifying increase, and present at the same time an imposing view of the magnitude to which this branch of the national industry has attained within the last decennium.

The total value of domestic manufactures, (including fisheries and the products of the mines,) according to the Census of 1850, was $1,019,106,616. The product of the same branches for the year ending June 1, 1860, as already ascertained in part and carefully estimated for the remainder, will reach an aggregate value of *nineteen hundred millions of dollars* (1,900,000,000.) This result exhibits *an increase of more than eighty-six* (86) *per centum in ten years.* The growth of this branch of American labor appears, therefore, to have been in much greater ratio than that of the population. Its increase has been 123 per cent. greater than that even of the white population by which it was principally produced. Assuming the total value of manufactures in 1860 to have been as already stated, the product *per capita* was in the proportion of sixty dollars and sixty-one hundredths ($60.61) for every man, woman, and child in the Union. If to this amount were added the very large aggregate of mechanical productions below the annual value of five hundred dollars—of which no official cognizance is taken—the result would be one of startling magnitude.

The production of the immense aggregate above stated gave employment to about 1,100,000 men and 285,000 women, or one million and three hundred and eighty-five thousand persons. Each of these, on an average, maintained two and a half other individuals, making the whole number of persons supported by manufactures four millions eight hundred and forty-seven thousand and five hundred, (4,847,500,) or nearly one-sixth of the whole population. This was exclusive of the number engaged in the production of many of the raw materials, and of food for the manufacturers; in the distribution of their products, such as merchants, clerks, draymen, mariners, the employés of railroads, expresses, and steamboats; of capitalists, various artistic and professional classes, as well as carpenters, bricklayers, painters, and the members of other mechanical trades not classed as manufacturers. It is safe to assume, then, that one-third of the whole population is supported, directly and indirectly, by manufacturing industry.

11.[2] The mechanic arts—particularly in our country, where they are most diffused, and all but universal—appear to contribute more directly than any others to the general comfort and improvement of the people. All others are dependent upon them for the principal agents and instruments of their success. They are scarcely more subservient to the primary wants of mankind than to the higher minis-

[1] *Preliminary Report of the Eighth Census, 1860,* p. 59. Washington, 1862.
[2] *Ibid.,* pp. 60-75.

trations of taste and refinement. The acquisition and diffusion of knowledge, the means of intercommunication and transportation, the comforts, enjoyments, and security of the fireside, and even the honor and integrity of the nation itself, are dependent upon the skill and enterprise of the manufacturer and the mechanician; but the results of their labors are, from their nature, less obtrusive or obvious to the general apprehension than some others. The annual movements of our immense crops of grain, cotton, and other bulky staples, are easily appreciated. The pulsations of commerce may be counted by a superficial observer, in the arrival and departure of ships, and upon the records of the custom-house and the Exchange; but in the hands of the manufacturer a modicum of crude material undergoes a process of division, transformation, and elaboration, and then silently and unobtrusively disappears—diminished in bulk, but augmented, it may be, many hundredfold in value—in the ordinary channels of distribution where it is often undistinguished from its foreign rival. It is only when the nation decennially takes its account of stock that any approximate idea is obtained of the value of this item in the general account.

And who can justly estimate the influence upon the general happiness and prosperity—upon the progress in civilization of the sum total of effective labor, capital, and skill represented by such an aggregate as we have stated? What an amount of fixed capital—of labor, enterprise, ingenuity—of resources, material and immaterial—involved in the creation of nearly two thousand millions worth of manufactures in a single year! The addition of nearly one thousand millions to the annual product of domestic manufactures—an amount almost equal to the total home consumption thereof in 1850—implies also vast additions to the permanent wealth of the Union and to the elements of a progressive civilization. The increased support given to agriculture, commerce, and the mining interests by the consumption of hundreds of millions of dollars worth of raw material, and to hundreds of thousands of men, women, and children, who would have been otherwise unemployed, or forced into competition with the farmer and planter, instead of being consumers of their produce, form but a part of the benefits conferred upon the community at large. The independence and security contributed by the large body of intelligent manufacturers and mechanics capable of ministering to every want, whether of supply or defence, cannot be overestimated. As might have been expected from the revelations of the Census, the country has been able to lean with confidence upon this arm of its strength in the trying emergency which has put the nation in armor for the defence of its dearest interests.

It is a gratifying fact, shown by the official statistics, that while our older communities have greatly extended their manufactures, the younger and more purely agricultural States, and even the newest Territories, have also made rapid progress. Nor has this department of American industry been cultivated at the expense of any other. There is much reason to believe that it affords the safest guarantee of

the permanency and success of every other branch. Evidence bearing upon this point is found in the manufacture of agricultural machines and implements, which is one of the branches that shows the largest increase in the period under review. There is little doubt that the province of manufactures and invention in this case has been rather to create than to follow the demand. The promptness of Americans to adopt labor-saving appliances, and the vast areas devoted to grain and other staples in the United States, have developed the mechanics of agriculture to an extent and perfection elsewhere unequalled. The adoption of machinery to the extent now common in farm and plantation labor furnishes the best assurance that the development of agriculture or manufactures to their utmost, can never again justify the old charge of antagonism between them in regard to labor, or injuriously affect either by materially modifying its cost or supply.

The total value of AGRICULTURAL IMPLEMENTS made in 1860 was $17,802,514, being an increase of 160.1 per cent. upon the total value of the same branch in 1850, when it amounted to the sum of $6,842,611. This manufacture amounted in New England to over two and three-quarter millions of dollars—an increase of 65.8 per cent. In the middle States the value was nearly five and a half millions, having increased at the rate of 122.2 per centum. In the western States, where the increase was most extraordinary, the value of implements produced was augmented from $1,923,927 to $7,955,545. The increment alone in those States was, therefore, only a fraction less than the product of the whole northern section of the Union in 1850, and was greater by 313 per cent. than their own manufacture in that year. In each of the States of Ohio and Illinois, which are the largest manufacturers in the west, the value of the product exceeded two and a half million dollars, being an increase in the former of 382, and in the latter of 235 per cent. in ten years. Michigan, Indiana, and Wisconsin increased their production of agricultural implements 1,250,386 and 201 per cent., respectively. While in some of the southern States there has been a decrease, in Virginia, Alabama, and Louisiana the increase in this branch has been large, and in Texas, which reported none in 1850, agricultural implements of the value of $140,000 were manufactured in 1860. The whole value produced in the southern States in the latter year (including cotton gins) was $1,582,483, exhibiting an increase of over 101 per cent. in the last decade.

The quantity of PIG IRON returned by the census of 1860 was 884,474 tons, valued at $19,487,790, an increase of 44.4 per cent. upon the value returned in 1850. Bar and other ROLLED IRON amounted to 406,298 tons, of the value of $22,248,796, an increase of 39.5 per cent. over the united products of the rolling mills and forges, which in 1850 were of the value of $15,938,786. This large production of over one and a quarter million of tons of iron, equivalent to 92 pounds for each inhabitant, speaks volumes for the progress of the nation in all its industrial and material interests. The manu-

facture holds relations of the most beneficial character to a wide circle of important interests intimately affecting the entire population; the proprietors and miners of ore, coal, and limestone lands; the owners and improvers of woodlands, of railroads, canals, steamboats, ships, and of every other form of transportation; the producers of food, clothing, and other supplies, in addition to thousands of workmen, merchants, and capitalists and their families, who have directly participated in the benefits resulting from this great industry. It has supplied the material for an immense number of founderies, and for thousands of blacksmiths, machinists, millwrights, and manufacturers of nails, hardware, cutlery, edged tools, and other workers in metals, whose products are of immense aggregate value and of the first necessity. The production of so large a quantity of iron, and particularly of bar iron, and the demand for additional quantities from abroad, tell of the progress of the country in civil and naval architecture and all the engineering arts; of the construction of railroads and telegraphs, which have spread like a net over the whole country; of steam-engines and locomotives; of spinning, weaving, wood, and metal working, milling, mining, and other machinery; and of all the multiform instruments of science, agriculture, and the arts, both of peace and of war; of the manufacture of every conceivable article of convenience or luxury of the household, the field, or the factory. The aggregate statistics of iron exhibit the extent to which the general condition of the people has been improved by this great agent of civilization during the ten years embraced in this retrospect.

The materials for the manufacture of iron—ore, coal and other fuel, water power, &c.—are so diffused, abundant, and cheap that entire independence of foreign supplies appears to be alike desirable and attainable at no distant period.

Probably no class of statistics possesses more general interest, as illustrating the recent progress of the country in all the operative branches, and in mechanical engineering, than those relating to MACHINERY. Nearly every section of the country, particularly the Atlantic slope, possesses a great affluence of water power, which has been extensively appropriated for various manufacturing purposes. The construction of hydraulic machinery, of stationary and locomotive steam-engines, and all the machinery used in mines, mills, furnaces, forges, and factories; in the building of roads, bridges, canals, railways, &c.; and for all other purposes of the engineer and manufacturer, has become a pursuit of great magnitude. The annual product of the general machinists' and millwrights' establishments, as returned in the census of 1850, was valued at $27,998,344. The value of the same branch, exclusive of sewing-machines, amounted in 1860 to $47,118,550, an increase of over eighteen millions in ten years. The middle States were the largest producers, having made over 48 per cent. of the whole, but the southern and western States exhibit the largest relative increase. The ratio of increase in the several sections

was as follows: New England, 16.4 per cent.; middle States, 55.2; southern, 387; and western, 127 per cent. The Pacific States produced machinery of the value of $1,686,510, of which California made $1,600,510. In Rhode Island the business was slightly diminished, but in Connecticut it had increased 165 per centum. The great facilities possessed by New York and Pennsylvania in iron, coal, and transportation, made them the largest manufacturers of machinery, which in the former was made to the value of $10,484,863, and in the latter, $7,243,453—an increase of 24.4 and 75 per cent., respectively. New Jersey raised her product to $3,215,673, an increase of 261 per cent., while Delaware and Maryland and the District of Columbia exhibited an increase of 82, 41, and 667 per cent., respectively. In all the southern States the value of the manufacture, though small, was largely increased; the ratio in Virginia, the largest producer, being 236 per cent., while in Mississippi, Alabama, and South Carolina, the next in amount of production, it was 1,626,270, and 525 per centum, respectively. This was exclusive of cotton-gins, which were included with agricultural machinery. Ohio was the largest producer in the west, and the fourth in the Union, having made to the value of $4,855,005, an increase of 125 per cent. on the product of 1850. Kentucky ranked next among the western States, having produced over one million dollars' worth, and increased her product 213 per cent. The ratio of increase in the other western States was, in Indiana, 98; in Illinois, 24; Wisconsin, 208; Missouri, 214; and Iowa, 2,910 per cent., respectively; but in Michigan there was a small decrease in the amount manufactured.

Besides a large amount of machinery and other castings included in the returns of machine shops, the value of the production of IRON FOUNDRIES, returned by the census of 1860, . . . reached the sum of $27,970,193, an increase of 42 per cent. on the value of that branch in 1850, which was $20,111,517. New York, whose extensive stove foundries swell the amount of production in that State, made to the value of $8,216,124, and Pennsylvania, $4,977,793, an increase of 39 and 60.9 per cent., respectively.

With the subject of iron and its various manufactures that of FOSSIL FUEL . . . naturally associates itself. The unequalled wealth and rapid development of the coal fields of the United States as a dynamic element in our industrial progress affords one of the most striking evidences of our recent advance. The product of all the coal mines of the United States, in 1850, was valued at $7,173,750. The annual value of the anthracite and bituminous coal, according to the Eighth Census, was *over nineteen millions* of dollars. The increase was over twelve millions of dollars, and was at the rate of 169.9 per cent. on the product of 1850. It was chiefly produced in Pennsylvania, Ohio, and Virginia. The coal mined in Pennsylvania, in 1850, was valued at $5,268,351. In the year ending June 1, 1860, the State produced 9,397,332 tons of anthracite, worth $11,869,574, and of bituminous

coal, 66,994,295 bushels, valued at $2,833,859, making a total value of $14,703,433, or an excess of $7,529,683 over the total product of the Union in 1850. Of bituminous coal, Ohio raised 28,339,900 bushels, the value of which was $1,539,713; and Virginia, 9,542,627 bushels, worth $690,188. The increase in Ohio was $819,587, and in Virginia, $222,780, in the value of mineral fuel, being at the rate of 113 per cent. in the former, and 47.6 per cent. in the latter. The increase in Pennsylvania was 179 per centum on the yield of 1850.

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In New England, the middle, and western States the value of book, job, and newspaper printing is returned as $39,428,043, of which eleven millions' worth consisted of books, the value of the latter being nearly equal to the whole product of the same branch in 1850, which was returned at $11,586,549. The manufacture of PAPER, especially of printing paper, has increased in an equal ratio, the State of Massachusetts alone producing paper of the value of $5,968,469, being over 58 per cent. of the product of the Union in 1850. New York returned paper of the value of $3,516,276; Connecticut, $2,528,758; and Pennsylvania, $1,785,900.

The SEWING-MACHINE . . . has also been improved and introduced, in the last ten years, to an extent which has made it altogether a revolutionary instrument. It has opened avenues to profitable and healthful industry for thousands of industrious females to whom the labors of the needle had become wholly unremunerative and injurious in their effects. Like all automatic powers, it has enhanced the comforts of every class by cheapening the process of manufacture of numerous articles of prime necessity, without permanently subtracting from the average means of support of any portion of the community. It has added a positive increment to the permanent wealth of the country by creating larger and more varied applications of capital and skill in the several branches to which it is auxiliary. The manufacture of the machines has itself become one of considerable magnitude, and has received a remarkable impulse since 1850. The returns show an aggregate of 116,330 machines made in nine States in 1860, the value of which was $5,605,345. A single establishment in Connecticut manufactured machines to the value of over $2,700,000, or nearly one-half of the whole production in that year. During the year 1861 sewing-machines to the value of over $61,000 were exported to foreign countries. It is already employed in a great variety of operations and upon different materials, and is rapidly becoming an indispensable and general appendage to the household.

Among the branches of industry which have been signally promoted by the introduction of the sewing-machine is the manufacture of men's and women's CLOTHING . . . for sale, which has heretofore ranked with the cotton manufactures in the number of hands—two-thirds of them females—and the cost of labor employed. The increase of this manu-

facture has been general throughout the Union, and in the four cities of New York, Philadelphia, Cincinnati, and Boston, amounted in value to nearly forty and one-quarter millions of dollars, or over 83 per cent. of the product of the whole Union in 1850. The manufacture of shirts and collars, of ladies' cloaks and mantillas—a new branch which has received its principal impulse within the last ten years—and of ladies' and gentlemen's furnishing goods generally, form very large items in the general aggregate of this branch. They severally employ extensive and numerous establishments, many of them in our large cities with heavy capital. In Troy, New York, the value of shirt collars alone annually manufactured is nearly $800,000, approximating in value to the product of the numerous and extensive iron founderies which have been a source of wealth to that city.

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Among the great branches of pure manufacture in the United States, that of COTTON GOODS holds the first rank in respect to the value of the product and the amount of capital employed. Aided by the possession of the raw material as a product of our own soil, and by the enterprise and ingenuity of our people, this valuable industry has grown with a rapidity almost unrivalled.

The total value of cotton goods . . . manufactured in New England was $80,301,535, and in the middle States $26,272,111—an increase of 83.4 per cent. in the former, and 77.7 in the latter. The remaining States produced to the value of $8,564,280, making the whole production during that year $115,137,926, against $65,501,687, the value of this branch in 1850, or an increase in the general business of nearly 76 per centum in ten years. In the States of Maine and New Jersey the manufacture increased in the same time 152 per cent.; in Pennsylvania, over 102 per cent.; in New Hampshire and Connecticut, over 87 per cent.; in Massachusetts nearly 69 per cent., and in Rhode Island 88.7 per cent. The total production in this branch was at the rate *per capita* of $3.69 for every individual in the Union, equivalent to 46⅛ yards of cloth for each, at the medium price of 8 cents per yard. The average product per head in 1850 was 32¼ yards. The increase alone has, therefore, been at the rate of 11 yards for each person, or nearly equal to the average annual consumption *per capita* in 1830, when it was estimated to amount to twelve yards. The number of hands employed in the manufacture in 1860 was 45,315 males, and 73,605 females, an increase in the male operatives of 10,020, and in the female of 10,944 since 1850. The average product of the labor of each operative was $969. The number of spindles was returned at 5,035,798, being an increase of 1,402,105, or 38.5 per cent. over the aggregate in 1850, which was estimated at 3,633,693. The New England States possess 3,959,297, or 78.6 per cent. of the whole, while Massachusetts alone employs 1,739,700, or 29.3 per cent. of the number returned in the Union. The increase of spindles in the last decade

was, in New England, 1,208,219, or 30 per cent. In the State of Maine, 186,100, or 163.3 per cent.; in the State of New Hampshire, 229,484, or 52.1 per cent.; in the State of Massachusetts, 451,609, or 35 per cent.; in the State of Rhode Island, 141,862, or 22.7 per cent.; in the State of Connecticut, 211,188, or 83.1 per cent.; while in Vermont it exhibited a decrease.

The product per spindle varies in the different States, partly accounted for by the fact that many maunfacturers purchase yarns which have been spun in other States.

The product of cotton goods per spindle is as follows: In Maine, $22 12; Massachusetts, $21 12; New Hampshire, $24 87; Vermont, $18 13; Rhode Island, $16; Connecticut, $16 46. The average in the New England States is $20 30; in the middle States, $30 48, and in the whole Union, $22 86.

The quantity of cotton used in the fabrication of the above goods was 364,036,123 pounds, or 910,090 bales of 400 pounds each. Of this amount the New England States consumed 611,738 bales, and Massachusetts alone 316,665. The consumption per spindle in that year in the various States and sections was as follows:

	No. of spindles.	Pounds of cotton.	Pounds per spindle.
Maine	300,000	23,438,723	78
New Hampshire	669,885	39,212,644	58.5
Vermont	19,712	1,057,250	53
Massachusetts	1,739,700	126,666,089	72.8
Rhode Island	766,000	38,521,608	50.2
Connecticut	464,000	15,799,140	34
New England	3,959,297	237,844,854	61.8
In the Middle States	861,661	76,055,666	88.26
In the United States	5,035,798	364,036,123	72.2

When we consider the large number of hands, and especially of women and children, who find employment in this business, the quantity of raw material, of machinery and of fuel, exclusively of American production, employed in this branch, and the amount of comfortable clothing and household stuffs supplied at cheap rates, or the amount it contributes to the internal and foreign commerce of the Union—its progessive increase is a subject of the highest satisfaction, and its growth both here and abroad is one of the marvels of the nineteenth century.

The returns of WOOLLEN MANUFACTURES show an increase of over fifty-one per cent. in ten years. The value of woollen and mixed goods made in 1850 was $45,281,764. In 1860 it amounted to $68,865,963.

The establishments numbered 1,909, of which 453 were in New England, 748 in the middle, 479 in the western, 2 in the Pacific, and 227 in the southern States. The aggregate capital invested in the business was $35,520,527, and it employed 28,780 male and 20,120 female hands, 639,700 spindles, and 16,075 looms, which worked up more than eighty million pounds of wool, the value of which, with other raw materials, was $40,360,300. The foregoing figures include satinets, Kentucky jeans, and other fabrics of which the warp is cotton, though usually classed with woollens. In the manufacture of these mixed goods the amount of cotton consumed is 16,008,625 pounds, which, with 364,036,123 pounds used in making cotton goods, as previously stated, amounts to 380,044,748 pounds, or 950,112 bales, exclusive of a considerable quantity used, annually, in household manufactures, and for various other purposes.

The largest amount of woollens was made in New England, where the capital was nearly twenty millions of dollars, and the value of the product $38,509,080, but little less than the total value in 1850. More than half the capital, and nearly one-half of the product of New England belonged to Massachusetts, which had 131 factories of large size. Rhode Island ranked next, and had increased its manufacture 163 per cent. in ten years, that of Massachusetts being 48 per cent. The value of woollens produced in the middle States was $24,100,488, in the western $3,718,092, and in the Pacific and southern $2,538,303. The sectional increase was, in New England $52.1, in the middle States 54, and in the south 107—the last showing the greatest relative increase. Pennsylvania, next to Massachusetts, was the largest producer, having 447 factories, which made $12,744,373 worth of woollen and mixed fabrics, an increase of 120 per cent. A value of $8,919,019 was the product of 222 establishments in the city of Philadelphia.

The State of New York holds the third rank in relation to this industry, its manufactures amounting to more than nine millions of dollars. The woollen manufactures of Maryland exhibit an increase of 86 per cent. In Ohio, which produced in 1850 a greater value of woollens than all the other western States, there was a decrease on the product of 1850, owing, probably, to the shipments of wool to Europe, which, in 1857, was found to be the most profitable disposition of the rapidly increasing wool crops of that State. In Kentucky, now the largest manufacturer of wool in the west, the product was $1,128,882, and the increase in ten years 40.4 per cent.; while in Indiana, which ranks next, it was 31 per cent., and in Missouri 18.8, on the product of 1850.

The extension of this important manufacture is a subject of great interest to the country, inasmuch as our climate renders woollen clothing necessary throughout a large part of the Union during much of the year; and because it would supply the best market to the wool-grower.

The quantity of wool returned for the whole Union in 1850 was upwards of fifty-two and a half millions of pounds. Sheep raising has been greatly extended and improved since that date in Ohio, Texas,

California, and other States, and the clip in 1860 amounted to 60,511,343 pounds, an increase of 15.2 per cent. in ten years. The yield still falls far short of the consumption, and large quantities continue to be imported, notwithstanding the amount of territory adapted to sheep husbandry.

The manufacture of LINEN GOODS has made but little progress in this country. A few mills, chiefly in Massachusetts, make crash and other coarse fabrics; the largest two in that State produced six million yards in 1860. Others are extensively engaged in making twines, shoe and other threads. It is to be regretted that the manufacture of flax has not attained greater magnitude in a country where the raw material is so easily and cheaply grown. Farmers throughout the west have raised the crop simply for the seed, and thrown out the fibre as valueless.

The manufacture of fabrics from FLAX COTTON has been commenced, and success in a new branch of industry is confidently expected. The inventive genius of our countrymen has perfected machinery for the preparation of flax for spinning, which can be furnished, it is alleged, at as low a rate as the product of southern cotton fields.

The manufacture of SEWING SILKS is extensively carried on in this country. Including tram, organzine, &c., the production exceeded five million dollars in the States of Connecticut, New Jersey, Massachusetts, Pennsylvania, and New York—their relative values being in the order mentioned. Ribbons are made to a small extent, but the chief manufactures of silk consist of ladies dress trimmings, coach lace, &c., of which the cities of Philadelphia and New York produce to the value of $1,260,725 and $796,682, respectively.

The production of LEATHER . . . is also a leading industry of much importance to the agriculturist and stock raiser, as well as to the commercial interest, inasmuch as it consumes all the material supplied by the former, and feeds an active branch of our foreign import trade. The tanning and currying establishments of the United States produced in 1850 leather, exclusive of Morocco and patent leather, to the value of $37,702,333. The product of the same branch in 1860 reached $63,090,751, an increase of nearly 67 per centum. In the New England States it was $16,333,871, in the Middle States, $36,344,548, and in the Western States, $5,986,457, being an increase [of] 66.6 per cent., 90.7 and 13.3 in those sections, respectively. The Pacific States and Territories, (including Utah,) which returned no leather in 1850, produced in 1860 to the value of $351,469. The largest producers of leather are New York, $20,758,017; Pennsylvania, $12,491,631; and Massachusetts, $10,354,056; an increase in those States of 111.7, 98.4, and 82.3 per cent., respectively. Including Morocco and patent leather the aggregate value produced in the Union in 1860 exceeded sixty-seven millions of dollars.

If we add to the sum total of this manufacture the aggregate value of all the allied branches into which it enters as a raw material, or take

an account of the capital, the number of lands, and the cost of labor and material employed in the creation and distribution of its ultimate products, it is doubtful if any other department of industry is entitled to precedence over that of leather.

The manufacture of BOOTS and SHOES employs a larger number of operatives than any other single branch of American industry. The census of 1850 showed that there were 11,305 establishments, with a capital of nearly thirteen millions of dollars, engaged in making boots and shoes to the value of $53,967,408, and employing 72,305 male and 32,948 female hands. The returns of 1860 show that 2,554 establishments in the New England States employed a capital only $2,516 less than that of the whole Union at the former date; and with 56,039 male and 24,978 female employes produced boots and shoes of the value of $54,767,077 or eight hundred thousand dollars more than the entire value of the business in 1850, and 82.8 per centum in excess of their own production in that year. Massachusetts increased 92.6 per cent., having made boots and shoes of the value of $46,440,209, equal to 86.6 per cent. of the general business in 1850. The State of New York returned 2,276 factories, with an aggregate production of $10,878,797; and New England, New York, Pennsylvania, and New Jersey together produced $75,674,946 worth of these articles, being 40.4 per cent. more than the product of all the States in 1850, and 67.9 per cent. more than their own manufacture in that year. The three counties of Essex, Worcester, and Plymouth, in Massachusetts, produced boots and shoes to the value severally of about 14½, 9½, and 9¼ million of dollars. The largest production of any one town was that of Philadelphia, in which it amounted to $5,329,887; the next that of Lynn, Massachusetts, was $4,867,399; the third, Haverhill, $4,130,500; the fourth, New York city, $3,869,068. The largest production of a single establishment was of one in North Brookfield, Massachusetts, and amounted to over $750,000. This establishment was the largest of five the same proprietors had in operation that year, the total production whereof was over one million pairs of boots and shoes, valued at more than thirteen hundred thousand dollars! Machinery propelled by steam power is now used in many large manufactories with highly satisfactory results.

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The manufacture of American Watches, commenced within the last ten years in Boston as an experiment, has proved eminently successful. Unable, heretofore to compete with the low-priced labor of European workmen, our ingenious countrymen have perfected machinery, by the aid of which watch movements are fabricated equal, if not superior, to the hand-made. The continued growth of this branch will diminish the importation of foreign watches, and may, at no distant period, earn for our country a reputation in this manufacture equal to that she enjoys in the kindred branch of clock-making. Gold and silver watch

cases are now produced to a very large extent, chiefly in the cities of Philadelphia, New York, and Newark.

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The manufacture and consumption of GAS, . . . for illumination and other purposes, which is one of the remarkable fruits of chemical science, has been greatly increased, not only in our northern cities, but in the large towns and villages throughout the Union. The quantity returned is but four thousand million feet of the value of eleven million dollars, but the whole quantity made exceeded 5,000,000,000 cubic feet, the value of which was about thirteen millions of dollars.

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Petroleum.—An important development of the natural resources of the country, and a valuable addition to its exports, have been made by the discovery, within two or three years, that certain indications, known to the aboriginal and early European inhabitants of the western country, of natural reservoirs of inflammable oil existing upon the headwaters of the Alleghany river in New York and Pennsylvania, were but the clue to apparently inexhaustible supplies of native oil, accessible at no great depth throughout an extended belt of country, embracing the bituminous coal measures of several States.

Petroleum, rock, or mineral oil, a natural product of the decomposition of organic matter, emitted from the soil in various formations, particularly those of rock salt, was known and employed to some extent by the ancients, having been mentioned by the father of history twenty-three hundred years ago, and by Greek and Roman writers of later date. In its more fluid form, as found on the shores of the Caspian Sea, near the Irawaddy of Burmah, in Italy, and some parts of our country, it has borne the name of nap[h]tha, while the more solid elements of the same substance predominated in the articles known as asphaltum and bitumen, found abundantly in the Great Pitch Lake of the Island of Trinidad, near the Dead Sea in Judea, and elsewhere. Petroleum is nearly identical in properties with the artificial oils, which have been long derived from the destructive distillation of different minerals, as cannel coal and brown coal, or lignite, bituminous shales, sands, clays, peat, &c., which have been the subject of numerous patents in Europe and America, and within the last eight years have been manufactured to a considerable extent in the United States and the neighboring provinces, until the native petroleum springs opened a source of cheaper supply.

As a product of our own country this remarkable substance was brought to the notice of the white population, as early as the middle of the last century, by the Seneca Indians, who found it upon Oil creek, a branch of the Alleghany, in Venango county, Pennsylvania, and near the head of the Genesee river, in New York, whence it received the name of "Seneca oil" and "Genesee oil." It was used by the natives in their religious ceremonies, and as medicament for wounds, &c. For the last-named purpose it has been long collected and sold in small quanti-

ties at a high price. A perennial flow of oil has been known to exist on Oil creek, above referred to, for a century. For the last forty years the spring has been enclosed in a vat, or structure of wood and stones, which was daily skimmed by the proprietor and made the source of considerable revenue. We have seen extensive diggings in this region made by the French more than a century since, while that nation held the valley of the Mississippi, which were evidently made with a view to ascertain the basis or source of what, no doubt, impressed the French officers as a most interesting and curious development of the bounty of nature. Petroleum, doubtless, formed an article of considerable traffic between the Indians and traders of that region; as we have seen, in some old account books of the last century, "gallons" and "kegs" of Seneca oil credited to Indians.

Its existence in any vast amount appears to have been unknown until 1845, when a spring was "struck," while boring for salt, near Tarentum, thirty-five miles above Pittsburg, on the Alleghany. Experiments having proved its constituents to be nearly the same as those of the artificial carbon oil, a company was organized in New York to attempt its purification by the same process applied to the latter. But little was effected, however, and in 1857 Messrs. Bowditch and Drake, of New Haven, commenced operations at Titusville, on Oil creek, where traces of early explorations were found, and in August, 1859, a fountain was reached by boring, at the depth of seventy-one feet, which yielded 400 gallons daily. Before the close of the year 1860, the number of wells and borings was estimated to be about two thousand, of which seventy-four of the larger ones were producing daily, by the aid of pumps, an aggregate of eleven hundred and sixty-five barrels of crude oil, worth, at twenty cents a gallon, about ten thousand dollars. Wells were soon after sunk to the depth of five or six hundred feet, and the flow of petroleum became so profuse that no less than 3,000 barrels were obtained in a day from a single well, the less productive ones yielding from fifteen to twenty barrels per diem. In several instances extraordinary means were found necessary to check and control the flow, which is now regulated in such wells according to the state of the market, by strong tubing and stop-cocks. The quantity sent to market by the Sunbury and Erie railroad from the Pennsylvania oil region, which has thus far been the principal source, increased from 325 barrels in 1859 to 134,927 barrels in 1861. The whole quantity shipped in the last-mentioned year was nearly 500,000 barrels. Since August, 1861, the product has rapidly increased. The present capacity of the wells is estimated at 250,000 to 300,000 barrels per week. So important, however, have the operations in this article become that a railroad, we understand, has been chartered in Pennsylvania exclusively for the transportation of the oil to market. From a recent number of the "Register," a newspaper published at Oil City, Pennsylvania, we copy the following statement respecting the product of petroleum in that vicinity: "We learn that the number of wells now flowing is seventy-five,

the number of wells that formerly flowed and pumped is sixty-two; the number of wells sunk and commenced is three hundred and fifty-eight; total, four hundred and ninety-five. The amount of oil shipped is set down at 1,000,000 barrels; amount on hand to date, 92,450 barrels; present amount of daily flow, 5,717 barrels. The average value of the oil, at $1 per barrel, is $1,092,000; average cost of wells, at $1,000 each, is $495,000; machinery, building, &c., from $500 to $700 each, $500,000. The total number of refiners is twenty-five. The detailed report of the condition of the wells shows that production is on the increase. Holders are firm at fifty cents per barrel at the wells, and don't seem to care about selling any great amount at that price." With increased facilities for getting it to the seaboard at a cheap rate of transportation, the operations will doubtless become much more extended than at present.

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Without any special stimulus to growth—depressed, indeed, during the years 1857 and 1858, in common with other public interests, by the general financial embarrassments of those years—and with a powerful competition in the amazing growth of manufactures in Great Britain and nearly every other nation of Europe, the manufactories of the United States had nevertheless been augmented, diversified, and perfected in nearly every branch, and almost uniformly throughout the Union. Domestic materials, whether animal, vegetable, or mineral, found ready sales at remunerative prices, and were increased in amount with the demand, while commerce and internal trade were invigorated by the distribution of both raw and manufactured products. Invention was stimulated and rewarded. Labor and capital found ample and profitable employment, and new and unexpected fields were opened for each. Agriculture furnished food and materials at moderate cost, and the skill of our artizans cheapened and multiplied all artificial instruments of comfort and happiness for the people. Even the more purely agricultural States of the south were rapidly creating manufactories for the improvement of their great staples and their abundant natural resources. The nation seemed speedily approaching a period of complete independence in respect to the products of skilled labor, and national security and happiness seemed about to be insured by the harmonious development of all the great interests of the people. Peace reigned within our borders and waited upon our name abroad. But in an evil hour the tide of prosperity has been stayed, whether to be rolled back or not, the ninth census will reveal.

Progress of the Labor Movement

12.[1] Prior to the establishment of the factory system there was little organization. The southern colonies, having the slave system for the

[1] Wright, Carroll D., *The Industrial Evolution of The United States,* pp. 232-240. New York, 1902.

Editor's Note.—Carroll Wright (1840-1909) was at one time chief of the Massa-

prosecution of their industries, did not offer any fertile field for the wage-worker to agitate the questions which interested him. The northern colonies, while having a different system of labor, offered but little field for such agitations, because industry was primitive in its nature, land was plenty, laborers were in demand, and habits and wants were simple; and yet the labor movement of the country, in the broadest sense, had its birth in both Virginia and Plymouth, for the two represented antagonistic systems of labor, the results being of vast importance to the welfare of the country, the antagonism culminating in 1861 in the great Civil War.

The two systems of labor had their effect in various directions, both in the economics of production and in the relation of the laborer to society. The comparison of free with slave labor has been treated in its appropriate chapter, but the very conditions of slave labor prevented organization, and so no traces of any labor movement prior to the Civil War can be found in the South. Free labor, however, offered opportunities for movements in various directions, and yet, on account of the conditions already cited, history does not reveal any concerted action of any consequence during the colonial period, except, it may be, in the early days in Massachusetts, when the ship calkers, who were politicians, organized what was known as the "Calkers' Club," the purpose of which was "to lay plans for introducing certain persons into places of trust and power." Samuel Adams's father, at a date as early as 1724, took an active part in this club, and it is from its name, it is said, that the term "caucus" was derived. But the elements of organization were wanting, for such organization comes through the aggregation of laborers in industrial centers. Association is the life principle of industry as well as of all efforts at progress, and so in all probability there were societies of tradesmen of different classes having various motives in forming their associations. The domestic system of labor, which kept workers in individual workshops and in their homes, stood in the way of extensive organization; thus it was not until the opening of the present century that labor unions began to have any influence in the shaping of affairs. They, however, exercised but little influence until after the first quarter of the century had passed.

The tailors, who have always been active participants in political matters, established a trades union as far back as 1806. This association probably grew from the influence exerted by members of the craft coming from England, who preserved their loyalty to the Journeymen Tailors' Unions of the old country. There were like organizations of hatters in 1819, and the shipwrights and calkers established their order in 1822, under the name of the "Columbian Charitable Society of Shipwrights and Calkers of Boston and Charlestown," and in 1823 the legislature of Massachusetts granted the society a charter. April 3, 1903, there was incorporated in the city of New York an association

chusetts Bureau of Statistics of Labor and later United States Commissioner of Labor (1885-1904). His work is authoritative and unbiased.

called the "New York Society of Journeymen Shipwrights," while another society was created in 1806, known as the "House Carpenters of the City of New York." The compositors of the latter city were also probably organized in the early years of the present century, for history shows that Thurlow Weed was elected a member as early as 1817. Their society was known as the "New York Typographical Society," Peter Force being its president. Curiously enough, although Mr. Weed's residence in Albany enabled him to secure the incorporation of the society, there was a strike in Mr. Weed's office in 1821, which grew out of the fact that one of his compositors was a "rat," that is, a non-union man.

With the year 1825 new elements and purposes appeared, and the way was opened for the development of the labor movement. It would be difficult to assign any single ruling cause for the new spirit which arose after that year, yet many reasons may be assigned for it. The demand for less hours of labor and for higher wages and experiments in coöperation may have had much to do with the inauguration of the movement. The spirit of association was rapidly developed through the influence of the altruistic preachings of Robert Owen, who came to this country in 1824. Owen had established one of the most prominent experiments in the Old World for the amelioration of bad conditions in labor communities. This was at New Lanark in Scotland. His chief experience there was in the year 1819, but he carried his experiments to such a success that he gained respect and renown everywhere.

The main cause of his success began with the practical improvement of the working people under his superintendence as manager and afterward as owner of the cotton-mills at New Lanark. He found himself surrounded by squalor and poverty, intemperance and crime. He erected healthy dwellings with adjacent gardens, and let them at cost price to his people. He built stores where goods of proper quality might be purchased at wholesale prices, and so aided in removing the pernicious effects of what is known as the "truck system." He established the first infant school in Great Britain, and he excluded all under ten years from his workshops and made the physical and moral training of the young his special care. He adopted measures to put down drunkenness and to encourage the savings of the people. As a natural consequence, the employees became attached to their employer, taking a personal interest in the success of the business, and laboring ably and conscientiously to make the mills of New Lanark a great financial success. An American traveler, Mr. Griscom, visited Owen's mills in 1819, and in making a report upon them used the following language:

> "There is not, I apprehend, to be found in any part of the world a manufacturing village in which so much order, good government, tranquillity, and rational happiness prevail. It affords an eminent and instructive example of the good that may

be effected by well-directed efforts to promote the real comfort, and, I may add, the morality of the laboring classes."

And Kaufmann, in his work on socialism, speaks of New Lanark as one of the romantic valleys of the Clyde which have been invested with the charm of poetry by Sir Walter Scott, and as having also been rendered the scene of an earthly paradise, from a social point of view, by Robert Owen. It is not strange, therefore, that when Owen came to America in 1824 his fame came with him and the laborers caught a new spirit and a new enthusiasm in relation to their surroundings. He received great attention from the American people, and it is probable that he laid the basis for the rapid extension of Fourierism over the whole country, probably more than two hundred communistic villages having been founded in the United States as the result of the doctrines taught by Charles Fourier. Some of these villages still exist, but their prosperity, such as came to them, was due largely to the fact that they traded with the world and the world was not communistic. It is not necessary here to discuss their peculiarities and characteristics, but it is well, perhaps, to remark that Horace Greeley, Albert Brisbane, Charles A. Dana, and others equally well known, were interested in the movement and helped to establish some of the most celebrated Fourieristic societies, the most notable of which was that at Brook Farm, in Massachusetts. Most of these attempts died after a few years of feverish existence, and yet they had an immense influence, extending over twenty or thirty years, in calling attention to socialistic and even communistic attempts.

The period from 1825 to 1850 may well be called the period of reform movements, many of them having but brief existence, others being firmly established in the minds of the people and extending in their influence beyond the associations which promulgated reform doctrines, and which are, many of them, felt even at the present day and will be felt for generations to come.

Another reason, perhaps, for the concentration of effort by working people is found in the rapidly developing factory system, the very essence of which is the principle of association. The concentration of population in industrial centers, as already remarked, fostered organization. These, and it may be other reasons, sufficiently account for the extension of the labor movement after the year 1825. Certain it is that unions began to be formed everywhere in the Northern States and the agitation for legislation for workingmen specifically carried on. Boston and New York were the most prominent localities in these movements. Labor literature began to appear as the result, and as early as 1825 the *Working Man's Advocate* was published in New York City. Dr. Richard T. Ely, in his excellent work on "The Labor Movement in America," thinks it probable that this was the first appearance of a representative labor press in the United States. This publication was followed by the *Daily Sentinel* and *Young America*,

all published by two Englishmen, George Henry Evans and Frederick W. Evans, who came to this country in 1820. The former was a land reformer. More than six hundred papers in the country indorsed the demands which these men made through their papers. These demands comprehended the right of man to the soil, the breaking up of monopolies, the freedom of public lands, the inalienability of homesteads, and called for the abolition of all laws for the collection of debts and for the adoption of a general bankrupt law. They also demanded a lien for the laborer upon his own work for his wages, the abolition of imprisonment for debt, equal rights for women with men in all respects, and the abolition of chattel slavery and of wages slavery.

From Thurlow Weed's autobiography it is learned that a "Workingman's Convention" was held at Syracuse, in the state of New York, in 1830, at which Ezekiel Williams was nominated for governor. In the election which followed less than three thousand votes, however, were cast for Mr. Williams, but the next year the movers, under the name of the "Workingmen's Party," united with the Whigs and succeeded in electing three or four members of the legislature. It was from this movement that the Loco-Foco party originated.

A great convention was held in Boston on the 16th of February, 1831, consisting of farmers, mechanics, and other workingmen. From this grew a delegate convention which was held in the subsequent year, on the 6th of September, in Boston. Many of the men afterward prominent in politics and in business were members of this convention. It discussed landed interests, taxation, and coöperative trading. Ten points were considered by it. These were the organization of a central committee for each state; the institutions of lyceums or institutes; reform in the militia system; the expediency of calling a national convention of workingmen; the ten-hour system; the effect of banking institutions and other monopolies upon the condition of the laboring classes; the improvement of the system of education, including the recommendation of such legislative enactments in relation to the internal economies of factories as would insure to the operatives a competent degree of instruction; the abolition of imprisonment for debt; the adoption of a national bankrupt law; the extension of the right of suffrage, and lien laws. These points were similar in many respects to the demands already referred to as announced by the Evans brothers. The Hon. Edward Everett commended the organization of the Workingmen's party in a lecture which he delivered before the Charlestown Lyceum in Massachusetts. Other meetings were held in the city of Boston, at which it was recommended that the mechanics of all branches should hold meetings by themselves for the purpose of consulting together and of doing all possible to come to a mutual agreement upon the system of working hours. At various meetings and by various conventions questions which to-day are being discussed by labor organizations were carefully considered, the relation of employers to employees, the ques-

tion of whether the ten-hour system is a benefit, and such matters, being the prominent subjects of consideration. The right of laborers to organize for the purpose of securing and protecting their interests and the question as to whether a general trades union would diminish strikes and lockouts were also prominent in the discussions. Following the meetings of 1831 and 1832 in Boston, "The General Trades Unions of the City of New York" were active in discussing the questions cited. This is the first attempt, so far as any accounts go to establish the fact, to unite workingmen of different trades in one organization. In later years this has been the rule.

The movement during the succeeding years took various forms, the employers taking a part in the matter from their point of view. The merchants and ship-owners of Boston, at a meeting held in the Exchange Coffee Rooms on the 15th of May, 1832, voted to "discountenance and check the unlawful combination formed to control the freedom of individuals as to the hours of labor, and to thwart and embarrass those by whom they are employed and liberally paid." The report of this meeting also sets forth "the pernicious and demoralizing tendency of these combinations, and the unreasonableness of the attempt, in particular where mechanics are held in so high estimation and their skill in labor so liberally rewarded." The members of that meeting held that labor ought always to be left free to regulate itself, and that neither the employee nor the employer should have the power to control the other; and they looked with deep regret upon the course pursued by their fellow-citizens, the journeymen, in the adoption and maintenance of a system of measures designed to coerce individuals of their craft and to prescribe the time and manner of their labor. The employers claimed that labor organizations would drive the trade from the city, and in their conclusions they resolved: "We will neither employ any journeyman who at the time belongs to such combinations, nor will we give work to any master mechanic who shall employ them while they continue thus pledged to each other and refuse to work the hours which it has been and is now customary for mechanics to work." The resolutions were signed by the representatives of one hundred and six firms.

The movement for ten hours was a failure, so far as success at the time it was originated was concerned, but it is probably true that it resulted in increasing the membership of organizations and in intensifying the agitation. The men were not destitute of influential friends, however. In Massachusetts such men as William Ellery Channing, Robert Rantoul, Horace Mann, and James G. Carter, advocated their claims. Education, and all that education means, was preached as the surest method of reaching the aims of the labor organizations. It was the whole burden of Channing's lectures on self-culture and the laboring classes. He had great confidence in them, believed in their wisdom and integrity, and that they were perfectly competent to so develop their

mental and moral powers as to enable them to meet the great questions of the time.

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13.[1] The history of organizations constitutes an integral part of the history of the country, and their growth to the present time an influential feature of industrial development. Their relation to strikes, their advocacy of all educational methods, their conservative action at times offset the radicalism which has at the same time led them into injudicious action. Through the years between 1825 and the present time their history is a progressive one, and its details would bring into prominence almost every industry in the country. Out of them there have grown some great associations or organizations, developing power and bringing to the attention of the country conditions which need reforming and relations which call for the highest ethical influence to secure proper adjustment.

In this progress events in Europe have had more or less influence, those of 1848 in France contributing largely to the renewal of the agitation of American socialism and labor reform. The exodus from Ireland following the famine and increasing the volume of immigration to the United States contributed to the agitation. The pressure in our own country also helped the movement. One of the chief and most annoying questions was that of the hours of labor. They were excessively long. Twelve, thirteen, and fourteen hours a day were not uncommon in textile factories and in some other lines, and at times even sixteen hours constituted a normal working day. The wage-earners protested against this, and the protests were made at an early day, so early that the agitation for ten hours can be said to be contemporaneous with the beginning of the labor movement. It now constitutes an important element in labor agitations, notwithstanding that in many places the purpose of organization in this respect has been accomplished. When the agitation was strong and yet an issue undecided, one of the presidents of the United States, Mr. Van Buren, issued a proclamation or a general order, April 10, 1840, introducing the ten-hour system into the navy yard at Washington, D. C., and in "all public establishments." The ten-hour day had received sanction in the city of Baltimore some time before President Van Buren interceded. The laborers in that city proclaimed to the world that ten hours should constitute a day's labor. They won in the conflict, and ever since ten hours a day has been the rule in that city. In 1845 the agitation was stimulated in Massachusetts throughout the textile industry, but it was not until 1874 that a law was passed making ten hours the normal day in that state for women and children. William Claflin, one of the governors of the state, later on openly advocated the ten-hour system. To-day that system prevails almost everywhere in the country, and in

[1] *Ibid.*, pp. 241-245.

some states law has established, under certain conditions, even a shorter day. This will be referred to more fully under "Labor Legislation."

This account of labor organizations, general and brief as it has been necessarily, should not be closed without mention of the leading unions now in existence and exerting an influence in the affairs of the country. One of the most important of these is the International Typographical Union. Nearly every state and territory is now represented at its annual sessions. This union has had many distinguished friends, notably the late George W. Childs, of *The Public Ledger*, of Philadelphia; Mr. Anthony J. Drexel, one of the great bankers of that city; and others who have passed away, and many prominent men, statesmen, and business men still living. So far as the writer can ascertain, this union traces its origin to 1850, when a "National Convention of Journeymen Printers" met in New York. The next year a meeting was held in Baltimore, but a permanent organization was not effected until 1852, when delegates met in Cincinnati. The title "National Typographical Union" was at that time adopted, but this name was changed to "International Typographical Union" at the annual meeting in Albany, N. Y., in 1869. The word "international" was introduced in order to bring into the organization Canadian printers. Dr. Ely, in his work already quoted,[1] asserts that "international" as a part of the title of American trades unions is intended to include members from the United States and Canada, few of them including Europeans. The International Typographical Union is the oldest existing American trades union. In this respect the American labor movement resembles the labor movement elsewhere, for generally we find the printers among the pioneers in the organization of labor. This is true of Italy, France, and Germany, the printers' unions being among the oldest and strongest of existing labor organizations.

Following the Printers' Union, the hatters established their great organization. This was in 1854, the "National Trade Association of Hat Finishers of the United States of America" being organized in that year. In 1868, however, it divided, one branch keeping the old name and the other taking the name of the "Silk and Fur Hat Finishers' Trade Association of the United States of America."

A noted trades union is the "Iron-Molders' Union of North America," founded July 5, 1859, and the "Machinists' and Blacksmiths' Union of North America," founded in the same year, and incorporated at that time by Congress, was once a powerful and influential body. It does not now, however, exert any influence, and it is doubtful if it exists. The Brotherhood of Locomotive Engineers started as the "Brotherhood of the Foot-Board, at Detroit," August 17, 1863, but on the same date in the next year it reorganized under the name and title of the "Grand International Brotherhood of Locomotive Engineers." The "Cigar-Makers' National Union," born in 1864; the "Bricklayers'

[1] *The Labor Movement in America.*

and Masons' International Union," instituted October 17, 1865; the "Order of Railway Conductors," organized as the "Conductors' Brotherhood" in 1868; the "United States Wool Hat Finishers' Association," organized in 1869; the "Brotherhood of Locomotive Firemen," organized the same year; the "National Union of Horseshoers of the United States," dating from 1875; the "Amalgamated Association of Iron and Steel Workers," one of the strongest trades unions in the United States, starting in 1876; the "Granite Cutters' National Union of the United States," organized in 1877; the "Brotherhood of Carpenters and Joiners," organized in 1881; the "Railroad Brakemen," in 1884; the "Journeymen Bakers' National Union," in 1886, etc., etc., constitute the leading trades unions of the country. Many of these unions have weekly newspapers of more or less influence.

The three great orders which to-day [1] exert the most general influence in this country are the Knights of Labor, American Federation of Labor, and American Railway Union, and their prominence warrants a statement of some of the leading facts connected with their history and principles. These three great orders are founded on two separate but fundamental ideas, the Knights of Labor and the American Railway Union upon one idea, and the American Federation of Labor upon the other. The distinctive features of these two ideas are, first, the organization of members of a single vocation. The underlying principle of such associations is that men who think alike should act together. This has been the fundamental principle or basis of all organization, civil and political as well as industrial and professional. Trades-unionism in England and in this country is based upon this idea, and it seems to be the stronger basis, so far as the experience of labor organizations is concerned.

[1] Editor's Note.—Written about 1895.

CHAPTER IX

THE TARIFF, MONEY AND BANKING

BY 1824 protectionism had become firmly established. In the tariff of 1824 the agriculturists and those interested in the extractive industries were especially favored. The middle and the western states were now placed in a position of reasonable security from foreign competition. However, opposition to the tariff had by no means disappeared. The growing specialization of the South with its inevitable dependence upon imported manufactures gradually forced this section of the country to protest vigorously against protectionism. In New England the shipping interests were likewise opposed to protection, although the manufacturers were rapidly gaining in strength (Nos. 1-3). The tarift of 1828 (the *Tariff of Abominations*)—inconsistent in so many respects—raised the average rate of the tariff far above the level of 1824, but was so unpopular, especially in the South, that a reduction was effected in 1832. The stubborn opposition of South Carolina led, in the following year, to the enactment of the Compromise Tariff. This Act provided for a maximum rate of 20 per cent. on all goods charged in excess of that amount in the Act of 1832, these reductions to be made gradually, so that by 1842 no duties were to exceed 20 per cent. In the latter year, however, the government felt the need for additional revenue and the tariff was raised to approximately the same level as in 1832. In 1846 and again in 1857 the rates of the tariff were reduced, but in 1861 an increase occurred (Nos. 4-8).

Although the policies of the Second United States Bank (1816-1836) were severely criticized (Nos. 9-10), there is little evidence that this institution was anything but a stabilizing factor. Failure to obtain a renewal of its charter was largely due to the opposition of President Jackson (Nos. 11-12). The disappearance of this institution was the signal for another period of banking chaos. State banks multiplied rapidly, and those already in existence greatly extended their activities. An increase in the demand for internal improvements encouraged the state banks to extend credit far beyond the actual needs of the country. Speculation in public lands became a source of temporary riches both to the

banks and to the investor, usually at the expense of the government, since the proceeds from the sale of federal lands were frequently kept in banks which were unable to redeem their notes in specie. This led to the famous "Specie Circular" (of July 11, 1836), authorizing government land agents to accept only specie or the notes of specie paying banks in payment for public lands.

While banking practices in many parts of the country were far from satisfactory, a number of attempts were made to provide adequate facilities for the redemption of notes and to protect the interest of depositors. Noteworthy examples of such improvements are found in the Suffolk Banking System in New England (Nos. 13-14) and the Safety Fund and Free Banking Systems of the State of New York (Nos. 15-17).

The introduction of the independent or sub-treasury system in 1846 [1] was made necessary because of the insecurity connected with state banking (Nos. 18-19). It insured the safety of public funds and also had the effect, through maintaining specie in circulation, of discouraging to some extent the over-issue of paper money by state-chartered banks. While the Independent Treasury was at first severely criticized it served the purposes of the government with such success that it remained an integral part of the fiscal system of the federal government until 1920, when the responsibilities of the sub-treasuries were assumed by the federal reserve banks.

Arguments Favoring the Protective Tariff

1.[2] Our agricultural is our greatest interest. It ought ever to be predominant. All others should bend to it. And, in considering what is for its advantage, we should contemplate it in all its varieties, of planting, farming, and grazing. Can we do nothing to invigorate it; nothing to correct the errors of the past, and to brighten the still more unpromising prospects which lie before us? We have seen, I think, the causes of the distresses of the country. We have seen that an exclusive dependence upon the foreign market must lead to still severer distress, to impoverishment, to ruin. We must then change somewhat our course. We must give a new direction to some portion of our industry. We must speedily adopt a genuine American policy. Still cherishing the foreign market, let us create also a home market, to give further scope to the consumption of the produce of American industry. Let us counteract the policy of foreigners, and withdraw the support which we now give to their industry, and stimulate that of our

[1] The law of 1840 establishing an independent treasury was repealed the following year.

[2] Clay, Henry, To The House of Representatives, March 30 and 31, 1824. In *State Papers and Speeches on the Tariff*, edited by F. W. Taussig, 1893, p. 265-267.

own country. It should be a prominent object with wise legislators to multiply the vocations and extend the business of society, as far as it can be done, by the protection of our interests at home against the injurious effects of foreign legislation. Suppose we were a nation of fishermen, or of skippers, to the exclusion of every other occupation, and the legislature had the power to introduce the pursuits of agriculture and manufactures, would not our happiness be promoted by an exertion of its authority? All the existing employments of society—the learned professions, commerce, agriculture—are now overflowing. We stand in each other's way. Hence the want of employment. Hence the eager pursuit after public stations, which I have before glanced at. . . .

The creation of a home market is not only necessary to procure for our agriculture a just reward of its labors, but it is indispensable to obtain a supply of our necessary wants. If we cannot sell, we cannot buy. That portion of our population (and we have seen that it is not less than four fifths) which makes comparatively nothing that foreigners will buy, has nothing to make purchases with from foreigners. It is in vain that we are told of the amount of our exports supplied by the planting interest. They may enable the planting interest to supply all its wants; but they bring no ability to the interests not planting; unless, which cannot be pretended, the planting interest was an adequate vent for the surplus produce of the labor of all other interests. It is in vain to tantalize us with the greater cheapness of foreign fabrics. There must be an ability to purchase, if an article be obtained, whatever may be the price, high or low, at which it is sold. And a cheap article is as much beyond the grasp of him who has no means to buy, as a high one. Even if it were true that the American manufacturer would supply consumption at dearer rates, it is better to have his fabrics than the unattainable foreign fabrics; because it is better to be ill supplied than not supplied at all. A coarse coat, which will communicate warmth and cover nakedness, is better than no coat. The superiority of the home market results, first, from its steadiness and comparative certainty at all times; secondly, from the creation of reciprocal interest; thirdly, from its greater security; and, lastly, from an ultimate and not distant augmentation of consumption (and consequently of comfort) from increased quantity and reduced prices. But this home market, highly desirable as it is, can only be created and cherished by the protection of our own legislation against the inevitable prostration of our industry which must ensue from the action of foreign policy and legislation. . . .

2.[1] At Worcester I met a remarkably intelligent person, with whom

[1] Hall, Captain Basil, *Travels in North America in the Years 1827 and 1828,* vol. i, pp. 269-273. Philadelphia, 1829.

Editor's Note.—Captain Basil Hall (1788-1844) is better known as a traveler and author than as a British naval officer. His *Travels in North America* (3 vols. 1829), *"Fragments of Voyages and Travels"* (9 vols. 1831-40), and *"Travels in*

I fell into conversation on the subject of manufactures, and the measure which was then in agitation, and has since been carried, of protecting, as it is called, the domestic industry of that country by a new Tariff, or higher scale of duties on imported goods.

He contended that the manufactures of New England in particular, but also those of other parts of the Union, had grown up during the late war, when foreign goods were excluded, and had been enabled to flourish, more or less, ever since, in consequence of the protecting duties laid on foreign articles by the Central Government. I was more anxious to hear his opinions than to give my own, and therefore merely made one or two commonplace remarks on the danger of tampering with such matters, and the evils which arose from governments attempting to lead industry by roads which it would not have followed naturally if left to itself. "Yes, sir," said he, "that is all true in theory, and quite suitable to those general principles which would be unerring guides, provided all the world were wise, and equally liberal and reasonable in such matters; but I put it to your candour to answer me this question,—How are the people of those parts of our country to live, where agriculture, in consequence of the inferior soil, is not a productive line of industry? What are we to do? And, on the other hand, with whom are the agricultural portions of our Union to exchange their produce? If all the world were open—well and good—but when you in England, for example, shut the door against the introduction of American wheat and other bread-stuffs—what are the inhabitants of those sections of our country which raise grain in abundance, to do with their crops? They want manufactured goods—they have grain to give for them—but you who manufacture cheap things, will not accept the only payment they are competent to offer; and consequently they must apply to their own industrious countrymen of New England, who, by dint of great regularity of habits, and vigorous application, assisted, too, in a most remarkable manner, by an almost unbounded command of water-power for their machinery, as well as water-transport for their goods, are enabled by a moderate protection to compete—at least we trust we shall do so—with the superior skill and greater capital of England. Thus we shall not only afford ourselves a livelihood, superior to that which our comparatively barren soil can yield us, but we shall provide a market for those sections of our own country where the land is fertile, and where industry finds much more productive employment in bringing waste lands into cultivation, than it can in manufactures for a long time to come."

This argument may be very good for New England, but unfortunately, I fear, for that portion of the Union, its application extends but a little way over the whole country; at all events, this doctrine

South America" (1841) are among his better known works. Basil Hall throughout his book on North America criticized American institutions most severely. Although unduly prejudiced and often trivial in his condemnation, his observations are of value to the student of social and economic history.

of protection is vehemently opposed by the Southern states, where the raw material is cultivated, and nothing manufactured; and where, of course, the object is to get the greatest return of goods, from any quarter—no matter what—in exchange for the products of their industry. The Americans of the South feel comparatively indifferent about how their eastern brethren employ their industry; and are apt to tell them to do as they have done for many years past, that is, to drain off to the westward, into those new and rich countries, which want only the stroke of a New Englander's axe to make them start into life and vigour. Such, indeed, has heretofore been the course of things in America; and I think it not unlikely that they must eventually return to the same channel, if the recent Tariff, passed avowedly for the immediate purpose of assisting one part of the community, and only prospectively for the benefit of the whole, shall not be able to resist the efforts of those parties who suffer under its operation in the meantime.

Should this Tariff, however, really be a good measure with reference to America, it will, of course, hold its ground in spite of its inconvenience—whatever that may be—to other countries. But I suspect it will be a hard matter to persuade the opposite parties, or those who do not benefit directly by it, to lie upon their oars, and be contented with measures, of which the present effect is notoriously to make what they want dearer, and for any future change in which they have only the interested promises of those very manufacturers, who flourish, say their antagonists only at the expense of their non-manufacturing countrymen.

If New England were a separate and independent State, I can really discover no good argument in reply to the above reasonings. My friend, however, did not make out his point, I think, in defending the Tariff; but perhaps his argument may suggest another and equally important view, namely, that these Eastern States may really have within themselves the means of becoming an independent manufacturing country. But they cannot reasonably hope to accomplish such a purpose, even with all their local advantages, at the cost of the Southern States, while both are members of the same political body; while if they were disentangled from such association, they would have to enter the market along with the competitors of Europe. How New England would be able to stand this, remains to be seen.

After all, it is probable, I think, that if there were no protecting duties at all, or very moderate ones, these matters would come to the same point, ultimately, and pretty nearly in the same interval of time as they will do now. It is quite clear, that goods from England, or any where else, will not continue to flow into America, unless payment flows out of it, in some shape or other; and if the English manufacturer will not take the "bread-stuffs" of the agricultural American States in exchange, while the New Englanders are willing to take them, what is to prevent the adjustment alluded to? This if I

understand it, is exactly what the manufacturers expect will eventually take place. "But in the mean time," say they, "until we are helped over the stile, and fairly placed in the market, by the exclusion of foreign competition, we cannot begin the race on fair terms." Perhaps the best policy of America would be the adoption of the lowest duty which would not entirely exclude foreign competition; not, of course, out of tenderness to foreigners, but simply because if this minimum point be exceeded—as it is loudly declared by a great part of the nation to have been by the late enactments—there seem to be obvious reasons why no reliance can be placed on the stability of the Tariff; and the capital which is turned aside by such delusive hopes, will be in some danger of perishing altogether.

Without entering into the morale of smuggling, I may observe, that all experience shows the utter impossibility of keeping out those goods which the people wish to have, even from places beyond comparison more easily guarded than America. It is idle, indeed, to talk of any thing being permanently effective in this way, against the general wishes of the country, along such extensive lines of coast as those of the Gulf of Mexico and of Canada, to say nothing of what is called the sea board, or Atlantic shore. In the course of one day, I have passed along a district which a thousand custom-house officers could not have protected from such inroads for an hour. And I have repeatedly heard in American companies the details of projects which could easily defeat every such surveillance. As to any refined moral sensibility standing in opposition to such methods of making money, it is useless to say one word. In all parts of the globe, the moment taxes of any kind, and especially those which relate to the duty on foreign goods, become more severe than the sensible part of the nation think reasonable, the shame of smuggling is at an end. The only difference which practically takes place is, that the working hands are changed. The reckless Contrabandista takes the place and reaps all the profits, and generally a great deal more than the profits, formerly earned by the fair dealer—the difference being paid by the consumer; "for vice," to use the expression of an acute American reasoner on this subject, "is always ready to fill up the gap left by misgovernment."

These very shocking doctrines are, of course, stoutly denied in the American legislature;—but I have seen too much of the difference which exists between promise and performance, in political matters, to distrust what experience has established in every other quarter of the globe; or to expect that, if smuggling can be made profitable in that country, the shame which attaches to it will not be soon frittered away.

The arguments drawn from the success which long ago attended a similar course of prohibitory regulations in England, will hardly apply to America, in consequence of most of the essential circumstances being dissimilar. During those times when, I grant, our commerce and manufactures did flourish under the exclusive system, we had things nearly all our own way, or with hardly any thing deserving

the name of competition to oppose us; and it was really too much for flesh and blood to resist the temptation of profiting thereby. Now, if America can manage, by any system of tariffs, coast blockades, treaties, or other devices, to place herself in circumstances at all similar, she will be very foolish not to avail herself of those advantages which we found to flow from them. But is any approach to this possible, with such a rival as England in the market—to say nothing of the Continental nations of Europe, which have lately entered the field of competition since the halcyon days of British monopoly were over?

In answer to this question, it may be urged, that America, in some senses, may be called an insular nation, and possesses other peculiarities besides the absence of neighbours, which cannot be imitated: such as the unbounded room in which her population may rove about. But it remains yet to be seen, how far these geographical distinctions which insulate her so much from the rest of the world, are capable of being turned to useful account. For my part, I really think we ought not to decide hastily upon such questions, as it may possibly be shown by time, that reasonings of great pith and moment, as applied to Europe, may have little or no reference to the political economy of a country so entirely different in some essential points of comparison.

The Tariff of 1824

3.[1] The act of 1816 laid a duty of 25 per cent. ad valorem "on woolen manufactures of all descriptions, or of which wool is the material of chief value, excepting blankets, woolen rugs, and worsted or stuff goods," until June 30, 1819, after which date the duty was to be reduced to 20 per cent. By the new law, "all manufactures of wool, or of which wool shall be a component part, (except worsted stuff goods and blankets, which shall pay 25 per cent. ad valorem,) were charged with a duty of 30 per cent. ad valorem, until the 30th of June, 1825, and after that time, with a duty of 33⅓ per cent. ad valorem: *Provided*, That, on all manufactures of wool, except flannels and baizes, the actual value of which at the place whence imported shall not exceed 33⅓ cents per square yard, shall be charged with a duty of 25 per cent. ad valorem." The second clause of the first section is as follows: "On all manufactures not herein specified of cotton, silk, flax, or hemp, or of which either of these materials shall be a component part, and on all manufactures of silk, or of which silk shall be a component material, coming from beyond the Cape of Good Hope, a duty of 25 per cent. ad valorem; on all other manufactures of silk or of which silk shall be a component material, 20 per cent. ad valorem: *Provided*, That on all cotton cloths whatsoever, or cloths of which cotton shall be a component material, excepting nankeens, imported directly from China, the original cost of which at

[1] Young, Edward, *Special Report on the Customs—Tariff Legislation of the United States*, pp. xlviiixllix. Washington, Government Printing Office, 1872.

the place whence imported, with the addition of 20 per cent. if imported from the Cape of Good Hope or any place beyond it, and of 10 per cent. if imported from any other place, shall be less than 30 cents per square yard, shall, with such addition, be taken and deemed to have cost 30 cents per square yard, and shall be charged with duty accordingly, and that all unbleached and uncolored cotton twist, yarn, or thread, the original cost of which shall be less than 60 cents per pound, shall be deemed and taken to have cost 60 cents per pound, and shall be charged with duty accordingly. And all bleached or colored cotton yarn, twist, or thread, the original cost of which shall be less than 75 cents per pound, shall be deemed and taken to have cost 70 cents per pound, and shall be charged with duty accordingly: *Provided, also,* That the provisions of this act shall not apply to, or be enforced against importations of goods from ports or places eastward of the Cape of Good Hope, or beyond Cape Horn, before the 1st day of January next ensuing."

The next clause, laying a duty on wool, is as follows: "On wool manufactured, a duty of 20 per cent. ad valorem, until the 1st day of June, 1825; afterwards a duty of 25 per cent. ad valorem until the 1st day of June, 1826; afterwards a duty of 30 per cent. ad valorem: *Provided,* That all wool, the actual value of which, at the place whence imported, shall not exceed 10 cents, shall be charged with a duty of 15 per cent. ad valorem, and no more."

The following are the duties imposed on some of the leading articles specified in the bill:

On japanned wares of all kinds, on plated ware of all kinds, and on all manufactures not otherwise specified, made of brass, iron, steel, pewter, lead, or tin, or of which either of these metals is a component material, a duty of 25 per cent. ad valorem.

On lead in pigs, bars, or sheets, 2 cents per pound.

On red or white lead, dry or ground in oil, 4 cents per pound.

On Brussels, Turkey, or Wilton carpets, and carpeting, 50 cents per square yard.

On all Venetian and ingrain carpets or carpeting, 25 cents per square yard.

On all other kinds of carpets or carpeting of wool, flax, hemp, or cotton, or parts of either, 20 cents per square yard.

On hemp, at the rate of $35 per ton.

On tarred cables and cordage, 4 cents per pound.

On untarred cordage, yarns, twine, pack-thread, and seines, 5 cents per pound.

On cotton bagging, 3¾ cents per square yard.

On iron in bars or bolts, not manufactured, in whole or in part, by rolling, 90 cents per 112 pounds.

On round iron, or braziers' rods, of three-sixteenths to eight-sixteenths of an inch in diameter inclusive, and on iron in nail or spike rods slit, and on iron in sheets, and hoop-iron, and on iron slit or

rolled for band-iron, and scroll-iron, or casement-rods, 3 cents per pound.

On window-glass, not above 8 inches by 10 inches in size, $3 per hundred square feet; not above 10 by 12 inches in size, $3 50 per hundred square feet; and if above 10 by 12 inches in size, $4 per hundred square feet: *Provided*, That all window-glass imported in plates, uncut, shall be chargeable with the highest rates of duties hereby imposed.

A duty of 12½ per cent. ad valorem on all articles not herein specified, *i.e.*, in the bill, and now paying a duty of 7½ per cent. ad valorem, with the exception of patent adhesive felt for covering ships' bottoms, which shall be admitted free of duty until June 30, 1826.

An addition of 10 per cent. to the regular duties was laid upon all goods imported in vessels not of the United States, except such ships as were entitled by treaty or by act of Congress to equality of privileges with our own.[1]

Tariff Legislation: 1832-1842

4.[2] This compromise act [1833] and the tariff of 1832 are inseparably associated with the most exciting events in the whole progress of our national history, from the adoption of the Constitution to the rebellion of 1861. The disaffection which had been fermenting in some of the Southern States, but especially in South Carolina, for several years, and which had of late found frequent expression in the halls of Congress—notably in the speech of Mr. Hayne, on Senator Foot's resolution in January, 1830, to which Daniel Webster made his famous reply—was stimulated to a violent outbreak by the act of 1832, which reaffirmed, in the most distinct and emphatic manner, the protective principle. Early in the autumn the legislature of South Carolina passed an act calling a State convention, to consider the late action of Congress, and agree upon the course of action to be pursued in regard to it. This convention, which numbered among its members representatives of nearly all the great families of the State, met at Columbia on the 19th of November. On the 24th of the same month, the celebrated nullification ordinance was adopted. It was ordained—

I. That the tariff law of 1828, and the amendment to the same of 1832, are null and void, and no law, nor binding upon this State, its officers or citizens.

II. No duties enjoined by that law or its amendment shall be paid

[1] Editor's Note.—Four years later the tariff of 1828, known as the *Tariff of Abominations* or *Black Tariff* was enacted, a measure that largely aided the woolen interests by imposing heavy duties on importations of raw wool and woolen fabrics. By this measure duties were also raised on pig iron, molasses, sail cloth and many other commodities. The reaction to this tariff, especially in the South, was emphatically one of extreme opposition, resulting in many political threats and counter-threats. Not even the reductions which were effected in the act of 1832 satisfied the South. The Compromise Tariff of 1833 followed.

[2] *Ibid.*, pp. lxxxvi-lxxxviii.

or permitted to be paid in the State of South Carolina after the first day of February, 1833.

III. In no case involving the validity of the expected nullifying act of the legislature, shall an appeal to the Supreme Court of the United States be permitted. No copy of proceedings shall be allowed to be taken for that purpose. Any attempt to appeal to the Supreme Court "may be dealt with as for a contempt of the court" from which the appeal is taken.

IV. Every office-holder in the State, whether in the civil or military service, and every person hereafter assuming an office, and every juror, shall take an oath to obey this ordinance, and all acts of the legislature in accordance therewith or suggested thereby.

V. If the Government of the United States shall attempt to enforce the tariff laws now existing by means of its Army or Navy, by closing the ports of the State, or preventing the egress or ingress of vessels, or shall, in any way, harass or obstruct the foreign commerce of the State, then South Carolina will no longer consider herself a member of the Federal Union. "The people of this State will thenceforth hold themselves absolved from all further obligation to maintain or preserve their political connection with the people of the other States, and will forthwith proceed to organize a separate government, and do all other acts and things which sovereign and independent states may of right do."

The action of the convention was sustained with remarkable unanimity by the people of the State. Robert Y. Hayne was elected governor, and the nullifiers had a large majority in the legislature, which met early in December. In his inaugural message the governor indorsed, in the strongest language, the acts of the convention, of which he had been a member, and declared that he recognized no allegiance as paramount to that which the citizens of South Carolina owed to the State of their birth or their adoption. He also announced his intention "to carry into full effect, not only the ordinance of the convention, but every act of the legislature and every judgment of our own courts, the enforcement of which may devolve on the Executive." The legislature promptly enacted the measures necessary to carry the ordinance into effect, and the governor was authorized to accept the services of volunteers ready to march at a moment's warning.

A pamphlet containing the proceedings of the convention reached President Jackson on one of the latter days of November. In his annual message to Congress, he dismissed the subject of nullification in a very brief paragraph, expressing the hope of a speedy adjustment of the difficulty; but while this calm and temperate document was being read and considered in Congress, the President was engaged in preparing his celebrated proclamation in regard to the South Carolina troubles, which appeared under date of December 11. The document was crowded with argument, appeal, and fervent entreaty, but withal,

the warning was distinctly given, that any forcible resistance to the laws would be suppressed by the combined power and resources of the United States.

This proclamation was received in the North with public manifestations of enthusiastic approval. In South Carolina, it was greeted with a resolution of the legislature, calling upon the governor to issue his proclamation, warning the people of the State "against the attempt of the President to seduce them from their allegiance, exhorting them to disregard his vain menaces, and to be prepared to sustain the dignity and protect the liberty of the State against the arbitrary measures proposed by the President." Accordingly, Governor Hayne, under date of December 31, 1832, issued a proclamation, whose warlike tone must have fully satisfied the belligerent expectations of the legislature.

In response to this proclamation, the President, on the 16th of January, 1833, sent a message to Congress, to ask legislation conferring an increase of powers adequate to the impending collision. In compliance with this message, the measure known as the Force Bill was passed by large majorities late in the month of February.

The first of February, the day when the nullification ordinance was to have gone into effect, had in the meantime passed without the commission of any overt act of resistance to the laws. A meeting of the leading nullifiers had been held in Charleston a few days before that date, and resolutions were passed to the effect that, inasmuch as measures were then pending in Congress which contemplated the reduction of duties demanded by South Carolina, the nullification of the existing revenue laws should be postponed till after the adjournment of Congress, when the convention would reassemble and take into consideration whatever revenue measures Congress might have adopted. It is quite fair to infer that the firm attitude of the President, coupled with the exhibition of sufficient force to show that he was thoroughly in earnest, was chiefly instrumental in inducing this sober second thought on the part of the nullification leaders. The passage of Mr. Clay's compromise bill, on the 2d of March, as already recited, furnished them an additional opportunity to recede from their position with a certain appearance of dignity; and after the adjournment of Congress on the 4th of the same month, Mr. Calhoun, the head and front of the nullification movement, hastened home, traveling night and day by the most rapid public conveyances, in time to use his influence in the convention against any further revolutionary proceedings. Some of the more ultra members were disposed to regard the compromise bill as a mere temporizing measure, but Mr. Calhoun's explanations satisfied the convention, and his course in supporting the bill was approved. The nullification ordinance was accordingly repealed, and the storm which for a time had so fiercely rocked the ship of state was again succeeded by the usual tranquillity.

5.[1] From and after the 31st of December, 1833, in all cases where duties are imposed on foreign imports by the act of 14th July, 1832, or by any other act which shall exceed twenty per cent. on the value thereof, one-tenth part of such excess shall be deducted; from and after the 31st day of December, 1835, 1837, and 1839, respectively, a further deduction of one-tenth of such excess shall be made; and from and after the 31st of December, 1841, a further reduction of one-half of the remainder of such excess; and from and after the 31st of December, 1842, the residue of such excess shall be deducted.

So much of the second section of the act of the 14th of July, aforesaid, as fixes the rate of duty on all milled and fulled cloth known by the name of plains, kerseys, or Kendall cottons, of which wool is the only material, the value whereof does not exceed 35 cents a square yard, at 5 per cent. *ad valorem*, is repealed. And said articles are subjected to the same duty as is provided for other manufactures of wool, viz: 50 per cent. *ad valorem*, and this duty is liable to the deductions mentioned above.

From and after the 31st of December, 1842, all duties upon imports shall be collected in ready money, and all credits abolished. Said duties to be assessed upon the value of said goods at the port where the same shall be entered.

In addition to the articles now exempt from duty, the following articles, imported after the 31st of December, 1833, and until the 30th of June, 1842, to be also admitted free of duty, viz: Bleached and unbleached linens, table linen, linen napkins, linen cambrics, worsted-stuff goods, shawls, and other manufactures of silk and worsted, manufactures of silk, or of which silk shall be the component material of chief value, coming from this side of the Cape of Good Hope, except sewing-silk; and from and after said 30th of June, 1842, the following articles to be admitted free, viz: Indigo, quicksilver, sulphur, crude saltpeter, grindstones, refined borax, emory, opium, tin in plates and sheets, gum arabic, gum senegal, lac dye, madder, madder root, nuts and berries used in dyeing, saffron, turmeric, woad or pastel, aloes, ambergris, Burgundy pitch, cochineal, camomile flowers, coriander seed, catsup, chalk, cocculus indicus, horn-plates for lanterns, ox horns, other horns and tips, India rubber, manufactured ivory, juniper berries, musk, nuts of all kinds, oil of juniper, unmanufactured rattans and reeds, tortoise shell, tin-foil, shellac, vegetables used principally in dyeing and composing dyes, weld, and all articles employed chiefly for dyeing, except alum, copperas, bichromate of potash, prussiate of potash, chromate of potash, nitrate of lead, aquafortis, and tartaric acid. And all imports on which the first section of this act may operate, and all articles now admitted free, or paying a less rate of duty than 20 per cent. *ad valorem*, before the said 30th day of June, 1842, from and after that day may be admitted to entry, subject to such duty, not exceeding 20 per cent. *ad valorem*, as shall be provided for by law.

[1] *Ibid.*, pp. lxxxv-lxxxvi.

6.[1] In consequence of the excessive importations of foreign merchandise in the last three years, under the Compromise Act, amounting in 1836 to $189,980,035, (an increase of $63,458,703 over those of 1834, the first year of its operation, and averaging for the three years $155,465,703 per annum,) a large amount of capital was driven from manufactures to seek investment in agriculture and in western lands. The revenue from customs and from the sale of the public domain had enabled the government at the commencement of the year 1835, to announce the total extinguishment of the public debt; and at the close of the ensuing year left in the Treasury, from the same sources, a surplus of over forty millions of dollars, the greater portion of which was derived from the Land Offices. A removal of the deposits was determined upon by the government, and twenty-eight millions of the surplus revenue was deposited in the state banks. It was liberally loaned to merchants and land-jobbers whose operations tended to swell the receipts. The circulation and discounts of the banks had also, in the last three years, increased over fifty per cent. in consequence of the spirit of speculation, and the abuse, and of credit was but feebly checked by the "specie circular" of the government requiring the value of public lands to be paid in coin. A commercial revulsion, such as the country had seldom witnessed, resulted from these and other causes. It commenced on the 10th of May, by the suspension of the New York banks, a measure which soon became general throughout the Union. A decline of over forty-eight millions in the value of the imports—which still amounted to nearly one hundred and forty-one millions, or twenty-three and a half millions in excess of the exports—and of more than twelve and a half millions in the revenue from customs, soon compelled the National Treasury to borrow money. The financial troubles which ensued were not alleviated for several years, notwithstanding various general and local measures of relief, including a Bankrupt Law which obliterated many millions of indebtedness. Numerous factories, particularly in New England, were compelled entirely to suspend business to the great distress of their operatives, and the government was at length compelled to return to a system of higher duties and of protection to domestic industry.

Tariff Legislation: 1842 to the Civil War

7.[2] The operation of the Compromise Tariff Act went on by biennial reductions until 1841. During those years, however, great changes overtook the commercial world, and the finances of the government were powerfully affected by them. One effect of the passage of the Tariff of 1828 had been to diminish the import of goods, and to induce, as a consequence, a larger importation of specie. This circumstance gave greater strength to the Banking movement, at a time when the

[1] Bishop, J. Leander, *A History of American Manufactures from 1608-1860,* vol. ii, pp. 409-10. Philadelphia, 1864. See note p. 9.

[2] *Ibid.,* pp. 424-428.

harvests of Europe being abundant, money was then cheap, and credits liberal. These circumstances initiated a season of speculation, which was fostered by the war that had sprung up between the government and the United States Bank. The government, on removing the deposits, placed them with State banks, with the reiterated injunction to "loan liberally to merchants." The numberless circumstances that combined to bring about the revulsion of 1837, and the suspension of the banks, by cutting short the importation of goods, ruined the government revenue, and reduced it to the issue of Treasury notes to meet current expenses. The large imports of the year ending with 1836, had, on the extinguishment of the public debt, caused a large surplus revenue to accumulate which had to the extent of twenty-eight millions been divided among the States. The revulsion now compelled a return to the Tariff for means of revenue. The compromise bill had however guaranteed, that after 1842, twenty per cent. should be a maximum duty, except in case of war. It was not thought advisable to violate that Compromise, but the twenty per cent. tax was laid upon a large portion of the articles that had been made free by the Compromise act. This did not meet the requirement, since in that year the value of free articles imported fell from thirty-six to thirty millions, while those dutiable increased less than eight millions. This did not however prevent Congress from passing a law to distribute the proceeds of the public land sales pro rata among the several States. The law was to become inoperative if the compromise limit of twenty per cent. duties should be infringed. The Tariff, therefore, became a question again in the following year. The wants of the government were made the basis of a new movement, similar to that of the Harrisburg Convention, and a "home league" was formed, October 15, 1841, with the object of restoring the high rates. The proceedings of the "home league" were endorsed by Mr. Clay and the other friends of the "American policy." The President, in his annual Message, December, 1841, called attention to the necessary revision of the Tariff, advising a moderate increase, and a change of the home-valuation principle. The debate upon this passage of the message again opened up the whole question of protection. The financial distress of the Federal government made more revenue urgent, and the distress of the manufacturers was urged as a reason why those duties should be high. While urging high duties, however, to supply the government revenues, it was proposed to repeal that section of the Land distribution act, which, by its operation, brought land revenues back into the Federal treasury upon the violation of the Compromise act.

In the Senate, Messrs. Calhoun, Bagby, Benton, and Woodbury, contended with Messrs. Clay, Evans, and others; and in the House the debate was very general. Mr. Clay declared the government wants to be the paramount necessity, and appealed to the patriotism of all parties to supply them. Mr. Calhoun objected to the proposed Tariff that it was worse than that of 1828. The average rate was, indeed,

ten per cent. less, but the substitution of cash duties for bonds on long credit, the substitution of specific for ad valorem rates on articles that had fallen in value, the home valuation of goods, the arbitrary mode of collecting, and the fact that it went into operation immediately on its passage, all tended to enhance its injurious features. He said: "I shall not dwell on the fact that it openly violates the Compromise act, and the pledges given by its author, and by Governor Davis, of Massachusetts, that if the South would adhere to the compromise while it was operating favorably for the manufacturers, they would stand by it when it came to operate favorably for the South. I dwell not on those double breaches of plighted faith, although they are of a serious character, and likely to exercise a very pernicious influence over our future legislation, by preventing amicable adjustments of questions that may hereafter threaten the peace of the country." The Bill was passed, with a clause repealing the clause of the land law which suspended the distribution of the public lands, making the distribution unconditional. For this it was vetoed, August, 1842, by John Tyler.

The debates were full, but with comparatively little excitement, and since the want of revenue was so apparent, the bill became a law, without the obnoxious clause: Messrs. Buchanan and Wright voting in favor of it for revenue reasons, but under protest. The law went immediately into operation. Among the changes that it introduced were the payment of duties in cash on the home-valuation, by which the Collector of the port where any description of goods should be imported, was to cause to be ascertained the actual value of the article in the principal markets of the country where it was exported, and at the time of export. To this value should be added costs and charges, including commissions, and the aggregate to be the value on which the duties are charged. All goods of wool imported in an unfinished state, shall be valued as if entirely finished at the place of export. The appraisers, collectors, and naval officers, were to have power to examine parties under oath in relation to values. These were some of the provisions that were considered very onerous. The Tariff went into operation at a time of great general depression in the commercial world, and, consequently, in a revenue point of view, it was not so successful as had been hoped. It did not, however, fail to revive the tariff issue at the general elections. The breach of the Compromise was charged, but the passage was denied as a party measure. The average charge upon dutiable goods under it was thirty-three per cent., and it yielded an annual average of twenty-six million dollars. The change of administration was in 1846 followed by the Mexican War, and views in respect of the tariff policy were again changed. The new administration proposed three important measures in relation to the duties. The first, to abandon the protective theory in favor of a revenue theory,—that is, to reduce the rates of duty, to

levy them ad valorem only, to make the rates uniform, and to make them payable in cash; the Warehouse system, to facilitate the carrying trade; and the Independent Treasury, by which the cash duties were to be collected in gold and silver only. The message of the President, December, 1841, remarked upon the importance of revenue rather than protection, and advised a reduction of existing rates as necessary to an increase of revenue. The Secretary of the Treasury made an elaborate report of the same tenor, recommending a revenue tariff, in opposition to a protective tariff, or the adjustment of the imports to such a point as would collect the largest revenue without checking the importation, or, in other words, the course of trade. Such a bill was introduced from the Committee of Ways and Means, by Mr. M'Kay, April 14, 1846. It made eight schedules, in one of which all liquors were charged seventy-five per cent. ad valorem; and all other goods, under their respective schedules, thirty per cent., twenty-five per cent., twenty per cent., fifteen per cent., ten per cent., five per cent., ad valorem, and the remainder free. It was estimated that these duties would give an average of twenty-four per cent. on the dutiable imports, and greatly increase the sum of the duties by admitting a larger trade. This bill was accompanied by the "Warehousing act," which provided for the payment of duties in cash, and that goods may be deposited in the public stores, subject to the order of the owner, for one year, upon the payment of duties; that goods in bond may be transported to any other port of entry, and other provisions tending to facilitate the operations of commerce. These bills again opened up the Tariff discussion. But the former discussions had exhausted argument, pro and con, and there could be little more said on the subject. Mr. Collamer defended the protective principle because "it was necessary to national independence," and the Tariff of 1842, "because it gave revenue enough"; and he denounced the abandonment, as intended in this bill, of protection as a principle of national government. Mr. Rathbone opposed the new bill as "not likely to give sufficient revenue." The debate was very general, but the tariff passed the House, July 3, by a vote of one hundred and fourteen to ninety-five, to go into operation December 1, 1846. The operation of the Tariff was extremely simple, all articles not free being charged with ad valorem duties. The Warehouse system was organized, as also the Independent Treasury system, and the course of trade soon adapted itself to the new regulation of specie payments. The Tariff operated ten years and seven months, viz., from the 1st of December, 1846, to the 1st of July, 1857, and in accordance with the estimates, it averaged twenty-four and one-half per cent. on the dutiable imports. The average duties under the tariff of 1842 had been twenty-six millions of dollars per annum. The average of the Tariff of 1846 was forty-six millions of dollars per annum during its operation. It is to be borne in mind, however, that the effect of the gold discoveries, by

imparting great activity to trade in general, promoted larger aggregate exports from the country, which, since it had become a gold-exporting country, could receive its pay only in those goods which were charged with duty. The same influence had also caused a rise in the value of commodities, and, of course, a large yield to ad valorem duties operating upon those high values.

The same causes which had imparted such activity to the import trade, had given animation to manufactures of all descriptions; and, while the government treasury was overflowing, the general prosperity was apparently sound. The large revenue yielded by the Tariff was in excess of the expenditures, and a considerable accumulation of gold took place in the Treasury vaults. This was not quite in accordance with sub-treasury law, which contemplated an amount of revenue no greater than the expenditure, so that gold should pass through the Treasury without stopping, thus keeping the specie currency active. The accumulation was felt to be an inconvenience, and the government sought to reduce it by the purchase of its outstanding stock at high premiums; but a permanent remedy was proposed in a reduction of the rates of duty upon all imported goods.

President Pierce, in his message of December, 1856, called attention to the annual report of Mr. Guthrie, Secretary of Treasury, in relation to the necessity of reducing the duties. The report set forth the large revenues in excess of the wants of the government, and argued that as all duties are a tax upon the people, they should be reduced when no longer required for the public service. It advised the placing of all materials that enter into manufactures, such as are free in Great Britain, upon the free list, and also salt, as a necessity for western provision packers. A Tariff bill was, in accordance with these recommendations, reported in the House, January 14, and engaged discussion. Mr. Durfee, of Rhode Island, advocated free materials, but wished to discriminate in favor of American manufactures. There was but little general interest manifested in the country in respect to the proposed changes. The manufactures of the East seemed more disposed to favor the free importation of raw materials, than to increase the tax upon the imported goods. The merchants of New York petitioned for the removal of the duties on sugar. The debate in the House went on until January, when it became more general upon the bill reported by the Committee of Ways and Means. Mr. Stanton, of Ohio, said it was very evident that the revenue must be reduced, but that the bill offered was a manufacturers' bill, intended to favor the wool-manufacturers of the East, at the expense of the wool-growers of the West. Mr. Washburn, of Illinois, wanted lead protected. Mr. DeWitt, of Massachusetts, favored the reduction of revenue by freeing raw materials. In the Senate, Mr. Adams, of Mississippi, proposed making railroad iron free. In the House, Messrs. Smith and Garnett, of Virginia, favored free trade. Mr. Letcher proposed a reduction of twenty per cent. on the Tariff of 1846. Mr. Camp-

bell, of Ohio, offered a substitute for the bill, of which the general features were nearly the same as those of the Committee of Ways and Means. This finally passed, one hundred and ten to eighty-four. Mr. Stanton, of Ohio, denounced it as passed by "fraudulent combination of those who favored the protection of hemp, of sugar, iron, and the woolen manufacturers of Massachusetts. It was a blow at the wool-grower." In the Senate, Mr. Hunter substituted a new bill, with large reductions. This was opposed by Mr. Brodhead, of Pennsylvania, who favored the House bills. Mr. Wilson, of Massachusetts, opposed it, because he said the object was to reduce the revenue, and these reductions would increase it by encouraging importation. Mr. Collamer, of Vermont, took the same view of it. Mr. Pugh, of Ohio, opposed both; he said "the wool-manufacturers seek to ruin the wool-growers." Mr. Toombs favored larger reductions. Mr. Butler, of South Carolina, wanted the Tariff abolished altogether. Mr. Toucey, of Connecticut, wanted the revenue diminished by adding largely to the free list. Mr. Hunter's bill finally passed, with an amendment by Mr. Douglas, that wool under twenty cents, foreign valuation, should be free. A Committee of Conference finally reported Mr. Hunter's bill, with the free list of Mr. Campbell's. This passed the House, one hundred and twenty-four to seventy-one, March 3d, to go into operation July 1st, 1857.

The effect of the Tariff was to check importation in the spring, and to cause a great accumulation of merchandise in bond, to be released after July 1st. The important reduction from one hundred per cent. to thirty per cent. on spirits, caused a large quantity to arrive, and the failure of the Louisiana sugar crop in that year, added very greatly to the effect of the reduction of the duty upon sugar, from thirty to twenty-four per cent. The elements of revulsion began to manifest themselves with the operations of the Tariff in the first months of which the goods in warehouse were put upon the market. The money-pressure that followed came in aid of the designs of the projector of the Tariff, in reducing the revenue, which fell from $63,875,905 in the last year of the Tariff of 1846, to $41,780,621 in 1858. This diminution of the customs, added to that of the land sales under the reaction of speculation, carried the revenue far below the wants of the government. This result once more brought with it the necessity for a revision of the Tariff in order to restore the revenue. The circumstances that attended the session of 1860-61 were such as enabled the passage of the bill reported by the Committee of Ways and Means, with little debate or investigation. The Act restored the highest protective character of the Tariff, replacing the ad valorem with complicated specific duties, and the bill went into operation at such short notice as caused it to operate upon goods ordered under the old tariff. This Act was followed by another change in August of the same year, and by still another in February, 1862. . . .

Effects of the Tariff

8.[1] In a review of the subject it would be both interesting and instructive to note the influences which some of the tariff acts have exerted upon the prosperity of the country, to investigate and record the comparative condition of productive industry and commerce during the few years immediately prior and subsequent to the acts of 1828 and 1832, or of 1842 and 1846. But such an investigation—rendered difficult by the long time which has since elapsed—would be incompatible with the purpose of this report, the sole aim of which is to present the history of tariff legislation, while carefully avoiding the discussion of any of the much controverted points connected with the effects which such legislation has produced. The condition of the country during the several periods indicated presents aspects which vary according to the stand-point from which the subject is viewed; and the undersigned is unwilling to expose himself to the charge of partisanship with which any attempt to sum up the facts of our past experience, with a view to deduce therefrom their proper economical lessons, would inevitably be made.

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In reviewing the debates of the last eighty years on the subject of customs-tariffs, one cannot fail to be impressed with the similarity of the arguments advanced upon the successive occasions when the policies of free trade and protection were brought under discussion. The leading principles upon which the doctrines of protection are supported were substantially presented, and that with much force and clearness, in Alexander Hamilton's first report as Secretary of the Treasury, while from the days of Madison down, the injustice of taxing one portion of the people for the benefit of an industry carried on by another has again and again been adduced, with varying degrees of earnestness, in opposition to protective duties. Coming down to special articles, it is found that the early legislators of this country, like those of the present day, were occupied more or less in discussing the effects of taxes on raw materials upon the industries in which those materials were to be used. Thus Representatives from Massachusetts strenuously opposed the duty on molasses, which was the raw material of New England rum, the manufacture of which was then an industry of considerable importance. At an equally early date we find the cordage manufacturer in conflict with the ship-builder, the latter desiring the admission of cordage at a low duty as an encouragement to his trade, while the former desired protection to his own branch of industry. The interests of this industry, and of the cultivation of domestic hemp, were also found to be at variance, since protection to the one increased the price of the raw material used in the other. The policy of taxing imported salt is another question which

[1] Young, Edward, *Special Report on the Customs—Tariff Legislation of the United States,* pp. cxcii-cxciii. Washington, Government Printing Office, 1872.

has repeatedly formed the theme of warm debate, and the arguments *pro* and *con* have been frequently presented. In the earlier debates, however, the advocates of a tax on this commodity supported it chiefly on the ground of its efficiency as a source of revenue.

Another thing suggested by the course of tariff legislation is, that communities, like individuals, have pretty uniformly been actuated by the consideration of their real or supposed interests, and their representatives in Congress have very naturally supported the policy by which a majority of their constituents believed those interests would be subserved. Thus we find that while the South has generally opposed protection, Kentucky and Louisiana have supported efficient protective duties upon hemp and sugar respectively, both of these being commodities for which there was an extensive home demand, while Russia, the West Indies, and other countries were active competitors in furnishing a supply. A fresher illustration of the same principle is found in the opposition to a reduction of the duty on rice which comes from South Carolina and Southeastern Georgia. The same point is illustrated in the changing attitudes of some of the States, corresponding with certain changes in their industrial or commercial interests. Thus we find the Representatives of Massachusetts, in the early years of the Republic, when her commerce was in the ascendant, voting against the tariff of 1790, the doubling of duties at the commencement of the war of 1812, and the acts of 1820, 1824, and 1828; but afterward, when her manufacturing interests had attained a greater magnitude and influence, she supported the protective tariff of 1842, and opposed the free-trade act of 1846. Now again, her manufactures being for the most part firmly established and generally secure against foreign competition, her people are in favor of reduced duties, while many of her largest manufacturers throw their influence in the same direction.

In some cases we find the Representatives of a particular State taking opposite sides, in obedience to the interests of the localities they respectively represent. Thus in the case of New York the protective duty on salt is supported by Representatives from that section of the State in which this commodity is produced, while the city, upheld mainly by commerce, and therefore interested in the unrestricted freedom of trade, favors the proposition to place salt on the free list.

The Second United States Bank

9.[1] The second Bank of the United States, like the first, and as all such banks of necessity always must be, was in its origin quite as

[1] Hildreth, R., *Banks, Banking, and Paper Currencies,* pp. 70-74. Boston, 1840. See note p. 28.

Editor's Note.—The confusion in the banking and monetary organization following the disappearance of the First United States Bank was a source of serious aggravation to the federal government, especially during the period of the War of

much a political and a party, as a mercantile institution; and the history of its early management furnishes an instructive lesson. By contrivance in the distribution of the stock, a very large portion of it was originally taken by certain speculating politicians of limited capital, who managed also to obtain the control of the affairs of the Bank, by holding their shares in the names of several persons, thus evading the provision of the charter which prohibited any individual, partnership, or corporation, from having more than thirty votes, and in fact turning that provision into a means whereby a minority of the stockholders, both in number and value, obtained the entire management of the Bank. These speculating stockholders, having appointed directors to suit themselves, next obtained a vote of that board, authorizing discounts on stock, so that they were enabled to pay up the second and third instalments of the capital of the Bank with the proceeds of their own discounted notes, and even to draw out, on the same security, the first instalment which had been paid in before the Bank commenced operations. In this way, persons of little or no capital were enabled to continue large stockholders in the Bank, and to wait the opportunity of selling out at an advance.

In order to create that advance, every means was taken to raise the discounts and circulation of the Bank to a level with those of the local banks, for the purpose of curtailing those excessive issues, and thus re-establishing the system of specie payments, this institution had been professedly created.

It thus happened that as fast as the local banks drew in their notes, the gap was supplied by those of the National Bank. The resumption of specie payments under these circumstances was rather nominal than real, for, from the very commencement of its operations, owing to the excess of paper in circulation, there was a constant run upon the Bank for specie. That part of the capital originally paid in coin was soon exhausted, and the run was only sustained by selling in Europe the government stocks held by the Bank, and importing specie at a loss, a process which evidently could not go on long. In the South and West, the early operations of the Bank tended to increase rather than to diminish the amount of local bank paper in circulation. The branches in that part of the country suffered large amounts of the local bank paper to accumulate in their hands, the local banks paying interest thereon; and every where a dangerous indulgence was allowed the local banks in the payment of those balances which the receipt of the public revenue by the Bank of the United States created against them.

Such was the effect of this system in the West, that great numbers

1812. The second bank was finally chartered in 1816 for a period of twenty years. The success of this bank can no more be doubted than that of its predecessor. Yet, for political reasons and because of the opposition of state banking institutions, a renewal of the charter was not granted. As a state bank, chartered by Pennsylvania, this bank continued its existence until 1841.

of new banks were created. Thus in Kentucky, *forty-three* banks, known as the Independent Banks, by way of distinguishing them from the State Bank and its branches, were incorporated by a single act. The greater part of them went into operation, but without any solid capital whatever. A like increase of banking institutions took place in Tennessee, Ohio, and the other Western States. All these institutions were very short-lived. They were all nominally specie-paying banks, but their ability to pay specie, and at the same time their existence, came to a very speedy termination.

Matters went on in this way till July, 1818, or about a year and a half from the commencement of the operations of the new National Bank. By this time, its loans had reached the amount of forty-three millions, independent of its government stocks. Its circulation was upwards of ten millions. The bank stock had been raised to a premium of 56 per cent. as early as August, 1817. Since that time it had been on the decline. To sustain its operations, within the year preceding, the Bank had imported upwards of seven millions of specie, at an expense of $500,000; the greater part of which had been instantly drawn out of the Bank, and exported again.

That matters could not go on much longer in this way, became evident even to those by whose indiscretion and interested recklessness, this state of things had been produced. A violent and rapid course of curtailment was instantly ordered and put into execution. From the operation of this curtailment, however, the stock notes were excepted, and the whole of it fell upon the business paper, producing the greatest pressure and distress among the mercantile classes.

This distress led to an investigation of the management of the Bank by a committee of Congress. The committee made a report on the 16th of January, 1819. This document contains a detail of the proceedings of the institution up to that time. It concludes by declaring that the Bank had violated its charter in several particulars. A motion was made in the House, that a *scire facias* should be issued against the Bank, to show cause why its charter should not be rescinded; and another motion was made to repeal the act of incorporation. Both these motions failed by a large majority. Had they been carried, they would only have added to the distress and confusion of the time.

Immediately after this report, the stock of the Bank fell to 97, and Mr. Jones, the president, resigned his office. Mr. Cheves, of South Carolina, was chosen his successor, but it was not till the 6th of March, 1819, that he arrived at Philadelphia, and entered on the discharge of his official duties.

The Bank had suffered not only from bad management, but from downright fraud on the part of its own agents. The branch at Baltimore was managed exclusively by persons who had had a principal hand in bringing the general affairs of the Bank into the condition in which they now stood. These persons, not content with the

enormous loans they obtained under the system of discounting stock notes already mentioned, had drawn out of the branch, without any authority, and without the knowledge of any body except the president and cashier, upwards of three millions of dollars, the greater part without any security whatever, and more than half of which was ultimately lost to the Bank. The losses sustained, up to the time at which Mr. Cheves assumed the management of affairs, amounted to upwards of three millions and a half,—a sum which exceeded by half a million all the nominal profits derived, during the same time, from the immense business which the Bank had transacted.

At that moment, it was no longer a mere question of profit or loss, but whether the Bank should stand or fall. Notwithstanding all the curtailments which had been made, the pressure upon it was more severe than ever, and a suspension of specie payments was generally talked of. Large amounts of specie had been drawn from the West, but the coin in the vaults of the Bank was still at a very low ebb. Mr. Cheves adopted energetic measures. The southern and western offices were ordered to issue no more notes, and the Bank ceased to purchase or collect exchange on the South and West. At a special meeting of the Board of directors, it was ordered, that the curtailments already directed should be continued; that the balances due from the local banks should be collected; that a loan in Europe should be negotiated of two millions and a half, for three years, and that certain indulgences should be claimed of the government relative to the transfer and payment of public moneys.

These measures, diligently followed up, sufficed in a short time to place the Bank in a condition of security; but they were attended with most disastrous consequences to those individuals and institutions, which, by the ill-judged indulgence of the two preceding years, had become large debtors to the Bank. This was in fact the true era of the resumption of specie payments. It was now for the first time, since the suspension in 1814, that the paper currency was so far reduced in quantity as to bring it to a par with specie. During the preceding depreciation, and in consequence of it, there had been a great rise of prices, which now sunk to a specie level. This universal fall of prices was in itself sufficient to cause universal distress. Add to this, the sudden reduction in the amount of bank accommodations caused by the failure of many banks, and the curtailment of the rest.

But these two causes, though sufficient to have produced a mercantile convulsion of the greatest severity, were but transitory in their character. There were other causes which came into operation about the same time, of a more permanent kind, which not only contributed to aggravate the distress of the moment, but which extended that distress over the ten following years. . . .

10.[1] The agitation of the United States Bank question, involving

[1] *Annual Report of the Comptroller of the Currency. . . . December 4, 1876,* pp. 13-15. Washington, Government Printing Office, 1876.

the general subject of the currency, which was awakened by President Jackson's first annual message, had become earnest in Congress as early as the session of 1829-'30; and it grew more and more intense until, as a subject of legislation, it was settled on July 10, 1832, by his veto of the bill for recharting the bank. The interval of about six years from the time of the President's first intimations of hostility to the bank to the expiration of its charter, in March, 1836, is memorable for the persistence and violence of the warfare between the bank and its party, and the administration and its supporters, in and out of Congress. The most important event which marked the struggle was the removal of the deposits of the Government from the Bank of the United States to the State banks, under the order of Secretary Taney, executed on the 1st of October, 1833, which has already been noticed.

Removal of the Public Deposits.

"The Globe, of the 20th of September, 1833, announced that the public deposits would, 'after the 1st of October, be made in the State banks, but that it is contemplated not to remove at once the whole of the public money now on deposit in the Bank of the United States, but to suffer it to remain there until it shall be gradually withdrawn by the usual operations of the Government.' The bank thenceforward knew that if its own policy should be pacific, it had nothing to fear from any unusual call from the Government; yet with specie enough in its vaults to pay the entire public deposit at once, it maintained its stringency, under the pretext that it must be prepared for vindictive attacks from the Treasury Department."

But other results followed, which were of much more consequence than the question of the fitness or unfitness of a particular fiscal agency of the Government. The State banks which were selected as depositories of the large revenues of the Treasury expanded their issues, and a multitude of other banks, old and new, went wild in a general inflation of the circulation. The aggregate of their circulating notes (exclusive of those of the Bank of the United States) rose from $61,000,000 in 1830 to $149,000,000 in 1837. In March, 1830, the Finance Committee of the Senate had said: "They are satisfied that the country is in the enjoyment of a uniform national currency, not only sound and uniform in itself, but perfectly adapted to all the purposes of the Government and the community, and more sound and uniform than that possessed by any other country." And yet, but seven years after this, on the 10th of May, 1837, all the banks then in operation, with the mammoth United States Bank of Pennsylvania among them, went into suspension, as if by common consent; or, as Colonel Benton has it, "with a concert and punctuality of action which announced arrangement and determination such as attend revolts and insurrections in other countries;" and he declares that "the prime mover and master manager of the suspension was the Bank of the

United States, then rotten to the core and tottering to its fall, but strong enough to carry others with it, and seeking to hide its own downfall in the crash of a general catastrophe." This allegation derives some support from the report of the committee of the stockholders, made in January, 1841, after the failure of the bank. They say: "The origin of the course of policy which has conducted to the present situation of the affairs of the institution dates beyond the period of the recharter by the State."

Favored by an excess of importations of specie, amounting to nearly twenty millions in the two years ending September 20, 1838, the banks of New York and New England resumed on May 10 of that year. The banks of Philadelphia made three resumptions and as many failures before February, 1841, and did not effectively resume until March of the following year; so that, from the time when the Senate committee had so highly commended them, a period of twelve years of vicious fluctuation and depreciation of the currency elapsed before the banks again settled into what was then called "a state of regularity." During this period they reduced their circulation from 149 millions in 1837 to 58 millions in 1843, which is three millions below the amount at which it stood thirteen years before.

The United States Bank did not wind up its affairs, nor even prepare to do so; on the contrary, it applied for and obtained a charter from the legislature of Pennsylvania, which was granted and approved by the Governor of the State on the 18th of February, 1836, just thirteen days before the expiration of its charter from the general Government. This charter differed in nothing essential from that just expiring, except in the term of the bank, which was extended to thirty years, and in the amount of the bonus paid and to be paid for it. It was in effect a renewal and extension of the charter, without change of conditions or purposes, and under the old corporate name. The title of the act of incorporation, however, is worthy of note. It is styled, "An act to repeal the State tax on real and personal property, and to continue and extend the improvements of the State by railroads and canals, and to charter a State Bank, to be called the United States Bank." The bonus, or cost of the charter to the bank, if it had maintained its existence and solvency long enough to meet the charges imposed, would not have fallen short of five millions of dollars, assuming, which it is safe to do, that the long list of subscriptions required to be made to railroads, canals, navigation companies, and turnpike roads, scattered all over the State, should eventually prove to be unproductive.

Colonel Benton describes the Pennsylvania charter as "a transmigration of the Bank of the United States, . . . changing itself from an imperial to a provincial institution, retaining all the while its body and essence, its nature and attributes, its name and location;" and he does not hesitate to ascribe "every circumstance of its enactment to corruption, bribery in the members who passed the act, and an

attempt to bribe the people by distributing the bonus among them." The subsequent disastrous history of the bank would seem in some measure to justify these charges. This bank, as has been seen, suspended specie payments as often as other State institutions, and finally succumbed to trials which other banks, more prudently managed, survived. It made an assignment of certain securities on May 1, 1841, to secure five millions of post-notes which other banks had taken in exchange for its demand-notes. The second assignment was made June 7, 1841, to secure its notes and deposits, "among which were notes and deposits of the late Bank of the United States, incorporated by Congress," so that it appears to have been, up to 1841, using its old issues. The third and final assignment, made on September 4, 1841, covered all its remaining property, "to provide for the payment of sundry persons and bodies corporate which the bank is at present unable to pay."

Nicholas Biddle had been the president of the bank from January, 1823, to March, 1839, when he resigned, leaving the institution, as he said, "prosperous." The shares, however, were sold at that time at 111, instead of 125, as in 1837, and were quoted in April, 1843, after its failure, at one and seven-eighths.

The final result of the liquidation of the bank is briefly stated in a letter to this Office from Thomas Robins, esq., president of the Philadelphia National Bank, who is believed to be the only survivor of its numerous assignees. He says: "All the circulating notes of the Bank of the United States, together with the deposits, were paid in full, principal and interest, and the accounts of the assignees were finally settled in 1856. There were no funds, and no dividend was paid to the stockholders of the bank; the whole twenty-eight millions of dollars were a total loss to them. The seven millions of stock held by the United States previous to the institution becoming a State bank was paid in full to the Government, so that the United States lost nothing by the bank. . . ."

11.[1] Circumstances make it my duty to call the attention of Congress to the Bank of the United States. Created for the convenience of the Government, that institution has become the scourge of the people. Its interference to postpone the payment of a portion of the national debt that it might retain the public money appropriated for that purpose to strengthen it in a political contest, the extraordinary extension and contraction of its accommodations to the community, its corrupt and partisan loans, its exclusion of the public directors from a knowledge of its most important proceedings, the unlimited authority

[1] Jackson, Andrew, Sixth Annual Message, December 2, 1834. In a compilation of *Addresses and Messages of the Presidents of the United States,* edited by Edwin Williams, Vol. II, pp. 875-878. In transcribing this selection a number of changes in punctuation and capitalization have been introduced.

EDITOR'S NOTE.—This section should be read in the light of President Jackson's bitter political fight to eliminate the Bank of the United States.

conferred on the president to expend its funds in hiring writers and procuring the execution of printing, and the use made of that authority, the retention of the pension money and books after the selection of new agents, the groundless claim to heavy damages in consequence of the protest of the bill drawn on the French Government, have through various channels been laid before Congress. Immediately after the close of the last session the bank, through its president, announced its ability and readiness to abandon the system of unparalleled curtailment and the interruption of domestic exchanges which it had practiced upon from the 1st of August, 1833, to the 30th of June, 1834, and to extend its accommodations to the community. The grounds assumed in this annunciation amounted to an acknowledgment that the curtailment, in the extent to which it had been carried, was not necessary to the safety of the bank, and had been persisted in merely to induce Congress to grant the prayer of the bank in its memorial relative to the removal of the deposits and to give it a new charter. They were substantially a confession that all the real distresses which individuals and the country had endured for the preceding six or eight months had been needlessly produced by it, with the view of affecting through the sufferings of the people the legislative action of Congress. It is a subject of congratulation that Congress and the country had the virtue and firmness to bear the affliction, that the energies of our people soon found relief from this wanton tyranny in vast importations of the precious metals from almost every part of the world, and that at the close of this tremendous effort to control our Government the bank found itself powerless and no longer able to loan out its surplus means. The community had learned to manage its affairs without its assistance, and trade had already found new auxiliaries, so that on the 1st of October last the extraordinary spectacle was presented of a national bank more than one-half of whose capital was either lying unproductive in its vaults or in the hands of foreign bankers.

To the needless distresses brought on the country during the last session of Congress has since been added the open seizure of the dividends on the public stock to the amount of $170,041, under pretence of paying damages, cost, and interest upon the protested French bill. This sum constituted a portion of the estimated revenues for the year 1834, upon which the appropriations made by Congress were based. It would as soon have been expected that our collectors would seize on the customs or the receivers of our land offices on the moneys arising from the sale of public lands under pretences of claims against the United States as that the bank would have retained the dividends. Indeed, if the principle be established that anyone who chooses to set up a claim against the United States may without authority of law seize on the public property or money wherever he can find it to pay such claim, there will remain no assurance that our revenue will reach the Treasury or that it will be applied after the appropriation

to the purposes designated in the law. The paymasters of our Army and the pursers of our Navy may under like pretences apply to their own use moneys appropriated to set in motion the public force, and in time of war leave the country without defence. This measure resorted to by the bank is disorganizing and revolutionary, and if generally resorted to by private citizens in like cases would fill the land with anarchy and violence.

It is a constitutional provision "that no money shall be drawn from the Treasury but in consequence of appropriations made by law." The palpable object of this provision is to prevent the expenditure of the public money for any purpose whatsoever which shall not have been first approved by the representatives of the people and the States in Congress assembled. It vests the power of declaring for what purpose the public money shall be expended in the legislative department of the Government, to the exclusion of the executive and judicial, and it is not within the constitutional authority of either of those departments to pay it away without law or to sanction its payment. According to this plain constitutional provision, the claim of the bank can never be paid without an appropriation by act of Congress. But the bank has never asked for an appropriation. It attempts to defeat the provisions of the Constitution and obtain payment without an act of Congress. Instead of awaiting an appropriation passed by both Houses and approved by the President, it makes an appropriation for itself and invites an appeal to the judiciary to sanction it. That the money had not technically been paid into the Treasury does not affect the principle intended to be established by the Constitution. The Executive and the judiciary have as little right to appropriate and expend the public money without authority of law before it is placed to the credit of the Treasury as to take it from the Treasury. In the annual report of the Secretary of the Treasury, and in his correspondence with the president of the bank, and the opinion of the Attorney-General accompanying it, you will find a further examination of the claim of the bank and the course it has pursued.

It seems due to the safety of the public funds remaining in that bank and to the honor of the American people that measures be taken to separate the Government entirely from an institution so mischievous to the public prosperity and so regardless of the Constitution and laws. By transferring the public deposits, by appointing other pension agents as far as it had the power, by ordering the discontinuance of the receipt of bank checks in the payment of the public dues after the 1st day of January, the Executive has exerted all its lawful authority to sever the connection between the Government and this faithless corporation.

The high-handed career of this institution imposes upon the constitutional functionaries of this Government duties of the gravest and most imperative character—duties which they can not avoid and from

which I trust there will be no inclination on the part of any of them to shrink. My own sense of them is most clear, as is also my readiness to discharge those which may rightfully fall on me. To continue any business relations with the Bank of the United States that may be avoided without a violation of the national faith after that institution has set at open defiance the conceded right of the Government to examine its affairs, after it has done all in its power to deride the public authority in other respects and to bring it into disrepute at home and abroad, after it has attempted to defeat the clearly expressed will of the people by turning against them the immense power intrusted to its hands and by involving a country otherwise peaceful, flourishing, and happy, in dissension, embarrassment, and distress, would make the nation itself a party to the degradation so sedulously prepared for its public agents and do much to destroy the confidence of mankind in popular governments and to bring into contempt their authority and efficiency. In guarding against an evil of such magnitude, considerations of temporary convenience should be thrown out of the question, and we should be influenced by such motives only as look to the honor and preservation of the republican system. Deeply and solemnly impressed with the justice of these views, I feel it to be my duty to recommend to you that a law be passed authorizing the sale of the public stock; that the provision of the charter requiring the receipt of notes of the bank in payment of public dues shall, in accordance with the power reserved to Congress in the fourteenth section of the charter, be suspended until the bank pays to the Treasury the dividends withheld, and that all laws connecting the Government or its officers with the bank, directly or indirectly, be repealed, and that the institution be left hereafter to its own resources and means.

Events have satisfied my mind, and, I think, the minds of the American people, that the mischiefs and dangers which flow from a national bank far overbalance all its advantages. The bold effort the present bank has made to control the Government, the distresses it has wantonly produced, the violence of which it has been the occasion in one of our cities famed for its observance of law and order, are but premonitions of the fate which awaits the American people should they be deluded into a perpetuation of this institution or the establishment of another like it. It is fervently hoped that thus admonished those who have heretofore favored the establishment of a substitute for the present bank will be induced to abandon it, as it is evidently better to incur any inconvenience that may be reasonably expected than to concentrate the whole moneyed power of the Republic, in any form whatsoever, under any restrictions.

Happily it is already illustrated that the agency of such an institution is not necessary to the fiscal operations of the Government. The State banks are found fully adequate to the performance of all services which were required of the Bank of the United States, quite

as promptly and with the same cheapness. They have maintained themselves and discharged all these duties while the Bank of the United States was still powerful and in the field as an open enemy, and it is not possible to conceive that they will find greater difficulties in their operations when that enemy shall cease to exist.

The attention of Congress is earnestly invited to the regulation of the deposits in the State banks by law. Although the power now exercised by the executive department in this behalf is only such as was uniformly exerted through every Administration from the origin of the Government up to the establishment of the present bank, yet it is one which is susceptible of regulation by law, and therefore ought so to be regulated. The power of Congress to direct in what places the Treasurer shall keep the moneys in the Treasury and to impose restrictions upon the Executive authority in relation to their custody and removal is unlimited, and its exercise will rather be courted than discouraged by those public officers and agents on whom rests the responsibility for their safety. It is desirable that as little power as possible should be left to the President, or Secretary of the Treasury over those institutions, which, being thus freed from Executive influence, and without a common head to direct their operations, would have neither the temptation nor the ability to interfere in the political conflicts of the country. Not deriving their charters from the national authorities, they would never have those inducements to meddle in general elections which have led the Bank of the United States to agitate and convulse the country for upward of two years.

12.[1] The United States Bank continued its war upon the administration until the last moment of its existence. Its charter expired by limitation in 1836, but it was entitled to two years in which to wind up its affairs. Instead of preparing to close up its business it resorted to new and desperate measures to prolong its powers. In January, 1836, a bill was "snaked" through the legislature of Pennsylvania, by means of bribery and corruption, entitled "An Act to repeal the State tax, and to continue the improvement of the State by railroads and canals, and for other purposes;" and under the vague generality of "other purposes," was found a charter for the United States Bank, adopting it as a State Bank. The people of Pennsylvania were astounded, and met in masses to denounce the act and demand its repeal; and at the next session of the legislature an investigation was ordered, but, as is usual in such cases, it came to nothing. Rotten and corrupt as the institution subsequently proved to be, it went on for several years, and exerted great influence in the commercial and political affairs of the country. The two general suspensions of specie payments, headed by the United States Bank, referred to in the foregoing extracts from Benton, were the suspensions of 1837 and 1839, in the latter of which the bank closed its doors upon its creditors

[1] Berkey, William, *The Money Question,* pp. 144-146. Grand Rapids, Michigan, 1876. See note p. 000.

October 9th, 1839, never really to open them again. A report of its affairs was made by a committee of stockholders, and disclosed, to quote again from Benton, "such an exhibition of waste and destruction, and of downright plundering and criminal misconduct, as was never seen before in the annals of banking. Fifty-six and three-quarter millions of capital out of eighty-two and one-quarter millions, (including its own of thirty-five,) were sunk in the limits of Philadelphia alone; for the great monster, in going down, had carried many others along with her; and, like the strong man in scripture, slew more in her death than in her life. Vast was her field of destruction—extending all over the United States—and reaching to Europe, where four millions sterling of her stock was held, and large loans had been contracted. Universally on all classes the ruin fell—foreigners as well as citizens—peers and peeresses, as well as the ploughman and the wash-woman—merchants, tradesmen, lawyers, wards and guardians; confiding friends who came to the rescue; deceived stockholders who held on to their stock, or purchased more; the credulous masses who believed in the safety of their deposits, and in the security of the notes they held—all—all saw themselves the victims of indiscriminate ruin. An hundred millions of dollars was the lowest at which the destruction was estimated; and how such ruin could be worked, and such blind confidence kept up for so long a time, is the instructive lesson for history; and that lesson the report of the stockholders' committee enables history to give. From this authentic report it appears that from the year 1830 to 1836—the period of its struggles for a re-charter—the loans and discounts of the bank were about doubled—its expenses trebled. Near thirty millions of these loans were not of mercantile character—neither made to persons in trade or business. . . . To whom were they made? To members of Congress, to editors of newspapers, to brawling politicians, to brokers and jobbers, to favorites and connections; and all with a view to purchase a re-charter, or enrich connections and exalt himself, (Nicholas Biddle, President of the Bank.) The importance of the destruction of the United States Bank cannot be overestimated. In no other way could the government have been rescued from the domination of the money power, which was sparing no pains to subvert the liberties of the people. John Randolph warningly said: "Charter a bank with thirty-five millions of capital; let it establish and learn its power; and then find, if you can, means to 'bell the cat.' It will be beyond your power; it will overawe your Congress, and laugh at your laws." His words were fully verified. Even Clay, who had said, in 1811, "I conceive the establishment of this bank (National Bank) as dangerous to the safety and welfare of this republic," and Webster, who had declared his hostility to bank currency repeatedly, as "one of the greatest of political evils," and "a contrivance for cheating the laboring classes of mankind," were both dragooned into the support of the United States Bank, in its application for a renewal of its charter; and all

this power over the monetary and political affairs of the country was developed by the bank while it was yet in its infancy and rotten, financially, to the core.

The Suffolk Banking System

13.[1] In 1819 the Suffolk Bank, of Boston, determined to undertake the redemption of foreign money according to the terms adopted by the New England Bank. It was voted that any bank placing with the Suffolk Bank $5,000 as a permanent deposit, with such further sums as would be sufficient to redeem its bills taken by the Suffolk Bank, should have the privilege of receiving its own bills at the same discount at which they were purchased. Banks in Providence and Newport and 23 other banks, then keeping an account with the Suffolk, were excepted from the requirement of a permanent deposit of $5,000, provided they made all their deposits at the Suffolk Bank. If any bank refused to make the deposit required, its bills should be sent home for payment. As a consequence of the competition of the Suffolk Bank with the New England Bank, discount on country bank notes was lessened; but "the animosity of the country banks, which were unwilling to keep a deposit in Boston for the redemption of their bills, was naturally very much aroused when the Suffolk Bank, collecting their bills, sent them home for specie, and much ill feeling was engendered." Various devices were planned to thwart the efforts of the Suffolk Bank. When the Lincoln Bank, in Wiscasset, was called upon for redemption of $3,000 of its notes, its office first tendered a Boston draft, which was declined. The cashier then sought delay by delivering small change, and by the hour of closing the doors had counted out only $500 in coins, nothing larger than 25 cents.

Owing to the monopoly which the country banks still possessed in the note circulation of Boston, it was determined to take more decisive action, for though Boston had more than one-half of the banking capital of New England it supplied only one twenty-fifth of the bills in use. The Suffolk Bank consequently addressed a letter, April 10, 1824, to each of the Boston banks, calling attention to the fact that the "prodigious credit thus enjoyed by the country banks is not owing to any superior confidence in the stability of these institutions or in their ability to redeem their promises in gold and silver, but may be attributed to a discount founded on the very difficulty and uncertainty of means of enforcing this payment. Such would not be the natural operation of these causes were these institutions what they professed to be, establishments for the discount of country notes and

[1] Dewey, Davis R., *State Banking Before the Civil War.* National Monetary Commission. 61st Cong., 2d Sess. Senate, Doc. 581, 1910, pp. 82-89.

Editor's Note.—Davis R. Dewey has written several valuable books and monographs in the field of financial history. While his *Financial History of the United States* is probably better known than his other works, his minor contributions represent the fruit of painstaking scholarship.

the convenience of country traders. Their bills would then circulate only in their own immediate vicinity. . . . Under the existing circumstances, we presume that a very great proportion of the discounts of the country banks are made in Boston. Loans to an immense amount are made by their agents here at reduced rates of interest, payable in three or five days after demand, so that they can be in funds at very short notice, and in this manner necessarily deprive us of much valuable business. And this great circulation is enjoyed by the banks out of the State, who do not pay the tax to the Commonwealth which we are compelled to pay." Attention was also called to the successful practice of New York banks, which, though they deducted no discount to reimburse them for the expense of sending bills home for redemption, found a compensating profit in the increased circulation of city notes. The Suffolk Bank thought that a discount of only one-fourth of 1 per cent would be required if it should undertake the work of redemption. It was, therefore, proposed that a fund be assessed upon the banks in proportion to their respective capitals, to be placed at the disposal of one or more banks for the purpose of sending home the bills of the banks in Maine.

At a conference which was held of representatives of the Boston city banks it was voted expedient to send home the bills of all banks out of the State and also the bills of other banks, as might be determined upon. Seven banks thereupon subscribed $300,000 in order to carry out the arrangement, and the Suffolk Bank was chosen as the agent.

This action created much excitement. The country banks realized that they must curtail their circulation and that it would probably be necessary to keep a larger specie reserve. For a brief time there was a bank war directed against what was called the "Holy Alliance" and the "Six-Tailed Bashaw." Some of the oldest and strongest country banks held out for a considerable period, refused to deposit, and paid in specie all demands.

The Hartford Bank, for example, claimed that the system was arbitrary and unjust and needlessly curtailed the profits of circulation. The Worcester Bank, which kept its deposit with the New England Bank, also declined the proposals of the Suffolk Bank and declared that it would not consent to negotiate under an attempt at coercion. A messenger from the Suffolk Bank presented $38,000 of the Worcester bills, or more than one-half of its circulation; the Worcester Bank, having a credit of $39,000 with the New England Bank, tendered a draft in payment, which the messenger agreed to accept if the Worcester Bank would keep its deposit with the Suffolk Bank. This offer was refused and the Worcester Bank paid $28,000 in specie and dispatched a messenger to Boston to pay the balance over the Suffolk's counter. The Suffolk Bank, however, declined the tender and sent a sheriff to attach real estate of the Worcester Bank.

In 1825 the system was modified so that country money was re-

ceived at par, instead of at a discount. Under these terms, the business of the Suffolk Bank rapidly developed and finally all of the banks in New England practically accepted the arrangement. "The general arrangement was as follows: Each bank placed a permanent deposit with the Suffolk Bank of $2,000 and upwards, free of interest, the amount depending upon the capital and business of the bank. This sum was the minimum for banks with a capital of $100,000 and under. In consideration of such deposit, the Suffolk Bank redeemed all the bills of that bank which might come to it from any source, charging the redeemed bills to the issuing bank once a week or whenever they amounted to a certain fixed sum, provided the bank kept a sufficient amount of funds to its credit independent of the permanent deposit to redeem all its bills which might come into the possession of the Suffolk Bank. The latter bank charging it interest whenever the amount redeemed should exceed the funds to its credit; and if at any time the excess should be greater than the permanent deposit, the Suffolk Bank reserved the right of sending home the bills for specie redemption. As soon as the bills of any bank were charged to it, they were packed up as a special deposit and held at the risk and subject to the order of the bank issuing them. In payment the Suffolk Bank received from any of the New England banks with which it had opened an account the bills of any New England bank in good standing at par, placing them to the credit of the bank sending them on the day following their receipt." In 1831 the banks were charged daily with all their redeemed bills instead of weekly. In 1834 the business of redemption had increased to such an extent that it was difficult to assort the bills in time for the daily settlement. The Suffolk Bank therefore notified the Boston banks that instead of receiving all their foreign money at par, it could take on any one day only an amount equal to one-half of their permanent deposit. Above that proportion it would charge one-tenth of 1 per cent. It also restricted the foreign money to that received in the regular course, excluding deposits from banks and brokers.

"The banks of New England were divided into two classes—those keeping a deposit with the Suffolk Bank and redeeming their bills at its counter; and those which kept an account with some other Boston bank, with which an arrangement was made for the redemption of their bills. The Suffolk Bank did not require the New England banks to keep a deposit with it as a condition precedent to receiving their bills at par. On the contrary, it received at par the bills of all sound New England banks, whether they kept an account with it or not. It only required that they should redeem their bills at some convenient place on penalty of having them sent home for specie.

"For the bills of the former class of banks the Suffolk had security in the form of deposits and collections. For the bills of the other class it had no security except the good faith of the banks acting as their agents, and to which it charged and sent daily all the bills for

the redemption of which they were responsible. As these could not be sent till the day after they were received, the Suffolk Bank was actually taking the risk of redemption on all this class of bills for one day without any security; and should any of these banks fail it had no positive assurance that the redeeming bank, with which such failed bank kept an account, would receive from it the bills it might have in hand."

During the earlier years of the system the Suffolk Bank had much difficulty in securing adequate deposits to meet the terms of agreement with the banks. Particularly was this so after 1831. Between that year and 1833, 90 new banks were chartered in New England, of which 45 were located in Massachusetts. "The Suffolk Bank became overloaded with redeemed bills; the banks were slow in making remittances and the accounts of many of them were overdrawn." The Suffolk Bank thereupon notified the banks which had overdrawn that their drafts would not be allowed above $10,000. Notwithstanding these instructions, 44 banks, in 1836, had overdrawn $664,000.

After the suspension of specie payments, in 1837, the Suffolk Bank was not in a position to coerce the other banks. Some of these continued to redeem at the Suffolk, while others withdrew their accounts. Moreover, the Suffolk Bank was unable to reduce the overdrafts of some of its correspondents, particularly in Maine, and it was finally obliged to decline to receive the bills of a large part of them. Notwithstanding these difficulties, the system was continued after resumption took place.

In Rhode Island the Merchants' Bank of Providence became the agent of the Suffolk. It made arrangements with most of the state banks to redeem for them the bills of all other banks except those of banks located in the same town. For this purpose it issued a large part of its circulation in the form of bills in denominations from $100 to $1,000, and had an understanding with other institutions that such bills, when received in the course of business, would not be presented for redemption in specie, but only in payment of their own notes. The Merchants' Bank thus refused to receive from any bank the bills of other banks in the same town, but left each to care for its own circulation by frequent redemptions of the bills of its immediate competitors, while it cared for the redemption of the banks by groups in each town. The Merchants' Bank paid interest on any balance against it, while the Suffolk Bank paid none.

14.[1] Although the services of the Suffolk Bank and the system which it represented were approved by the soundest banking opinion, there was frequent friction, and about 1855 a movement was started on the part of outside banks to establish an institution of their own which should conduct the business of redemption. As a result, the Bank of Mutual Redemption was organized in 1856 on a coöperative plan. As originally designed, banks in Massachusetts were to subscribe one-

[1] *Ibid.*, pp. 94-96.

half the capital of $3,000,000, and banks in the other New England States the other half. In order to prevent any one bank or small group of banks from gaining control, it was provided that no bank could subscribe more than 5 per cent of its capital. In this way it was believed the foreign banks would be able to distribute back to themselves the profits which were derived from assorting country money. Within a year 143 banks held stock and the project proved successful.

Under these conditions the special influence of the Suffolk Bank came to an end. The principle, however, had been justified. "The bank had not labored in vain; it had found the currency of New England in a chaotic state, but by putting this principle into practice it had brought order out of confusion, and had compelled banks to keep themselves stronger than they otherwise would." Its successful operation was undoubtedly aided by a law passed by Massachusetts in 1845 forbidding any bank to issue any notes except its own, but yet it must be remembered that the system had been well tested long before that date. Other reasons for the successful working of the Suffolk system are to be found in the rigid system of examination and supervision of banks by state officials which was early developed in nearly all parts of the New England States, and the fact that by allowing the correspondent banks to overdraw the Suffolk Bank could exert a powerful pressure. "The country banks kept their circulation as extended as possible for their own profit. Their overdrafts on the Suffolk enabled them to do so, but at the same time it put them completely into its power."

It must also be remembered that the operation of this system was confined to the area of New England, a section of homogeneous business interest, and there is grave reason to doubt if it could have been extended over the whole United States, limited as it was at that time.

The Safety Fund System: New York

15.[1] Every bank chartered, or the charter of which has been renewed, subsequent to the Act of April 2d, 1829, pays annually, during six years, to the treasurer of the State a sum equal to one-half of one per cent. on its capital. These payments, called the "bank fund," are appropriated to the payment of such of the debts of any of the said banks which shall become insolvent as shall remain unpaid after applying the property and effects of such insolvent bank. And whenever the fund shall be reduced by the payment of such debts to less than three per cent. upon the aggregate capital of the banks, every bank shall again renew its annual payments of one-half of one per cent. on its capital, until the fund shall again amount to three per cent. on the aggregate capital.

[1] Gallatin, Albert, "Considerations on the Currency and Banking System of the United States." In the *Writings of Albert Gallatin.* Edited by Henry Adams, vol. iii, pp. 418-420. Philadelphia, 1879.

It cannot be denied that the banking system of the State of New York, since it has been subject to these regulations, has proved superior to most and inferior to none of the plans adopted in other States. The banks, though they did suspend, were the first to resume, and have ever since maintained specie payments. Since the year 1830 only two banks subject to the regulations have been dissolved. One of these, having a capital of one hundred thousand dollars, was for some irregularity dissolved by Act of the Legislature. It paid all its debts, and the whole of its capital to the stockholders. The other (the City Bank of Buffalo) was dissolved by process of law, and its entire capital of four hundred thousand dollars is sunk. During the same period of ten years, and under a regimen till lately much less severe, not less than nine banks in Boston, with a capital of three millions six hundred thousand dollars, have failed or been dissolved; but in five of those cases the creditors suffered no ultimate loss.

The provisions which define and limit the legitimate operations of the banks, as well as those which insure the actual payment of the capital, or are intended to preserve it entire, have proved efficient and do not seem to require any alteration. It has been often suggested, and instances have been adduced to prove, that provisions for insuring the actual payment of capital might be evaded. The instances adduced have occurred when the provisions were inadequate. None has taken place amongst the New York banks subject to the present system. It will not be asserted that such instances may not occur; but when they are so extremely rare, to argue thence that the provisions are unnecessary or inefficient, is as illogical as an attempt to prove that because some criminals escape, laws for the punishment of crimes are unnecessary and inefficient.

For the enforcement of those provisions and of the other restrictions on banking operations, an inspection and thorough investigation of the affairs of the banks by officers unconnected with those institutions were necessary; and those investigations by the bank commissioners, as well as the publicity given to their statements, have proved eminently useful. No further provision in this respect seems necessary.

The Free Banking System

16.[1] The free-banking system of New York was authorized on April 13, 1838. Under its provisions any number of persons was authorized to form banking associations upon the terms and conditions and subject to the liabilities of the act. The law originally provided that such associations, on depositing stocks of the State of New York or of the United States, or any State stock which should be, or be made, equal to a five-per-cent. stock, or bonds and mortgages on improved and productive real estate worth, exclusive of the buildings thereon, double the amount secured by the mortgage, and bearing

[1] *Annual Report of the Comptroller of the Currency. . . . December 4, 1876,* pp. 23-24. Washington, Government Printing Office, 1876.

interest at not less than six per cent. per annum, should receive from the Comptroller of the State an equal amount of circulating notes. Previous to the year 1843, twenty-nine of these banks, with an aggregate circulation of $1,233,374, had failed; and their securities, consisting of stocks, and bonds and mortgages, amounting to $1,555,338, were sold for $953,371, entailing a loss of $601,966. The avails of the securities were sufficient to pay but seventy-four per cent. of the circulation alone. The losses to the bill-holders occurred only in the case of those banks which had deposited State stocks other than those of New York. The law was thereupon so amended as to exclude all stocks except those issued by the State of New York, and to require these to be made equal to a five-per-cent. stock. An amendment in 1848 required that the stocks deposited should bear six per cent. interest instead of five, and that the bonds and mortgages should bear interest at seven per cent., and should be on productive property and for an amount not exceeding two-fifths of the value of the land covered by them. Subsequently, on April 10, 1849, the law was again so amended as to require that at least one-half of the securities so deposited should consist of New York State stocks, and that not more than one-half should be in the stocks of the United States, the securities in all cases to be, or to be made, equal to a stock producing an interest of six per cent. per annum, and to be taken at a rate not above their par value and at not more than their market value.

The banks were under the supervision of a commissioner appointed under the safety-fund act until the year 1843, in which year they were required to report to the State comptroller; but in 1851 the present office of bank superintendent was established.

In 1840 a law was passed requiring the banks of New York to redeem their notes at an agency of the bank, either in New York City, Albany, or Troy, at one-half of one per cent. discount. This discount was reduced in 1851 to one-fourth of one per cent. After the passage of this act, two of the principal banks in the city of New York inaugurated a plan of redemption similar to the Suffolk system. The notes of such associations as kept a deposit with them were returned to the banks of issue, and the discount of one-fourth of one per cent. was divided between the redemption agent and the associations whose notes were redeemed. Those banks which did not provide the means for redemption were forced to close up their affairs.

Hon. Millard Fillmore, comptroller of the State of New York, in his report for 1849, says:

The safety-fund banks derived much of their credit from the individuals incorporated. By granting a special charter in each case, the legislature had it in its power in some measure to control this matter. The practice of granting exclusive privileges to particular individuals invited competition for these legislative favors. They were soon regarded as part of the *spoils* belonging to the victorious party, and were dealt out as rewards for partisan services. This practice became

so shameless and corrupt that it could be endured no longer, and in 1838 the legislature sought a remedy in the general banking law. This was the origin of the free-banking system. Since that time no safety-fund bank has been chartered, and in 1846 the people set their seal of reprobation upon this practice of granting special charters for banking purposes, by providing in the new constitution that "the legislature should have no power to pass any act granting any special charter for banking purposes, but that corporations or associations might be formed for such purposes under *general laws*."

The constitution of 1846 also provided that, after the year 1850, stockholders of banks issuing circulating notes should be individually responsible to the amount of their shares for all debts and liabilities of every kind, and that in case of the insolvency of any bank or banking association, the bill-holders should be entitled to preference in payment over all other creditors; and the constitution, as amended in 1874, still contains substantially the same provisions.

17.[1] After the New York free-banking law had been perfected by various amendments, and subsequent to 1850, a number of the States, among which were Massachusetts, Vermont, Connecticut, New Jersey, Ohio, Indiana, Illinois, Wisconsin, Tennessee, Virginia and Louisiana, adopted the system which had proved so satisfactory in New York. The Massachusetts and Louisiana acts, in addition to the many excellent features of the New York act, required an ample reserve to be kept on hand, and also contained other restrictions, which were subsequently embodied in the national-bank act. In nearly all the States which adopted the free-banking system, charters for banks were still granted which authorized the issue of circulating notes without security and in excess of capital. These were more profitable, and therefore in most of the States but few banks were organized under general laws. In other States the best features of the New York law were omitted. The shareholders were not made personally liable; the security required was not sufficient; the notes were issued in proportion to the stock and bonds deposited, and not in proportion to the cash capital; no provision was made for the prompt redemption of the notes at any commercial center, and a majority of the directors and shareholders were frequently non-residents. Many of the organizations were not banks, in any true sense of the word, but were associations without capital, located at places not easily accessible, and owned by non-residents who availed themselves of ill-considered legislation to convert their bonds into currency at rates higher than the market-value—drawing the interest on their bonds, but transacting little or no business at the place of issue. When the bonds depreciated in value, and any considerable amount of notes were presented at their counters for redemption, the banks failed, the securities were sold by the authority of the States, and the avails were distributed among the note-holders.

[1] *Ibid.*, pp. 35-36.

The governor of Indiana, referring to such banks, says in his message for 1853: "The speculator comes to Indianapolis with a bundle of bank-notes in one hand and the stock in the other; in twenty-four hours he is on the way to some distant point of the Union to circulate what he denominates a legal currency authorized by the legislature of Indiana. He has nominally located his bank in some remote part of the State, difficult of access, where he knows no banking facilities are required, and intends that his notes shall go into the hands of persons who will have no means of demanding their redemption."

The governor of Michigan, in his message for the same year, says: "At present we are giving charters to the issues of banks about which we actually know nothing, in whose management we have no participation, and are thus literally paying a large tribute for what generally in the end proves to be a great curse."

Governor Ford, in a message to the legislature of New Jersey, says: "In many cases our banks, although ostensibly located in New Jersey, have their whole business operations conducted by brokers in other States. The facility with which they may be organized and located, without reference to the wants of the community or the business of the place, is destructive to all the legitimate ends of banking."

The New York Journal of Commerce, in June, 1853, referring to the same subject, says: "The operators in these schemes have turned to the West, and, under the free-banking laws of Indiana, Illinois, and Wisconsin, are prepared to flood the channels of circulation with their notes. It is not western capital that is seeking profitable employment, nor is it eastern capital invested at the West. Not a dollar of the new currency will be issued where it is likely to be presented for redemption."

Banking in the North- and Southwest.

18.[1] It is an opinion very frequently expressed, that the establishment of banks in the western and southwestern country, has been a great source of prosperity to the cities and towns where they have been located as evinced by the improvements to which they have given rise, and by the commercial and manufacturing activity that has been displayed. Cincinnati, Louisville, Nashville, Natchez, Vicksburg, and numerous other places, it is said, owe a large share of their prosperity to the establishment of banks; and as these have all been banks of circulation, it is concluded that therefore banks of circulation must

[1] Raguet, Condy, *A Treatise on Currency and Banking,* pp. 124-127. Philadelphia, 1840.

Editor's Note.—Condy Raguet (1784-1842) was a Philadelphia merchant and "Political Economist." After the War of 1812 he studied law and later (1822) entered the diplomatic service, first as U. S. consul, in Rio Janeiro, subsequently as *chargé d'affaires.* He returned to the United States in 1830, devoting much of his time to literary work. Raguet was an advocate of freedom of trade and wrote extensively on this subject; he was editor of *The Free Trade Advocate* (2 vols. 1829) and *The Financial Register* (2 vols. 1837-39).

have powers to create national wealth, which I have denied to them. Let us examine this doctrine.

It has been shown in a former chapter, that nothing but capital, that is, something possessing an intrinsic value, can possibly be the means of setting industry in motion, and that banks have not the power of creating such capital by a mere issue of promissory notes. It may, then, fairly be concluded, that as far as any real prosperity has been ascribed to the circulating principle of the banks established in the places that have been mentioned, the position is fallacious, and without a shadow of foundation. But, at the same time, I am prepared to admit, that as far as the capitals of the banks referred to have been subscribed by capitalists residing in the Atlantic cities, those cities and towns have reaped all the benefits resulting from the borrowing of a foreign capital, whatever they may be. The simple fact of that capital's being nominally what is called "a money capital," is of no sort of consequence in the estimate of the benefits; for, in truth, although subscribed in money, it was never in the form of coin in the actual possession of the western banks, but a fund in the Atlantic cities, drawn upon and sold to the western merchants as a remittance to pay up their existing debts, or to purchase new supplies of goods. It was thus a capital subscribed, nominally in money, but really paid up in dry-goods, hardware, and groceries; and the effect, therefore, upon the prosperity of the western towns, was precisely the same as that of obtaining from individual merchants, or in any other way upon credit, an equal amount of merchandise, with this difference, that the credit might not cost as much through the process of a bank, as if obtained through a purchase of goods in the ordinary way.

This difference in the cost of the credit, however, is all the benefit that the western cities and towns can have reaped from borrowing foreign capital through bank charters, rather than through the ordinary channels of purchasing goods on credit. What it may have amounted to, it is not easy to ascertain; but as a set off to it, it may very fairly be assumed, that in the scramble for discounts made on the first opening of the banks, the loans of capital and credit were not as judiciously made for the general interests of the country, as sales of merchandise would have been by the eastern merchants, as is shown by the fact that immense sums were loaned to planters who embarked in speculations in lands and slaves, and to merchants who embarked in shipments of cotton, and who ultimately became embarrassed or ruined by these operations. Every one remembers that the southwestern banks were the last to resume specie payments after the late suspension; and it is well known to many, that they were only enabled to do it when they did, by borrowing large sums from the eastern cities, or by the emission of post notes payable at distant periods with which they absorbed a part of their immediate liabilities. If any stronger proof were wanted of injudicious and improvident loans on the part of many of those banks, it may perhaps be found

in the second failure that has taken place with all of them since their resumption in January, 1839, and in the expression of public opinion manifested on the stock exchanges of New York and Philadelphia at a recent period, which places the stocks of all of them below par, and of some of them very considerably below it.[1] If these facts be conclusive as to indiscreet and improvident loans, all the mischief which I have in other parts of this work traced to the same cause in other places, must be equally predicated of the western and southwestern banks; and it will not perhaps be difficult for the reader to admit, that all the benefit which the western and southwestern states have derived from the establishment amongst them of banks constructed upon foreign capital over and above the benefits which those states would have derived from their merchants buying and selling an equal amount of foreign goods on credit, has been more than counterbalanced by the evils resulting from incautious loans of capital and credit.

The Independent Treasury System

19.[2] Entertaining the opinion that "the separation of the moneys of the Government from banking institutions is indispensable for the

[1] The following western and southwestern bank stocks were sold at New York and Philadelphia, where a large amount of them are owned, between the 1st of September, 1839, and the 1st of January, 1840, as low as the prices specified in the first column. The sales at Philadelphia were made prior to the suspension of specie payments on the 9th of October, so that in both cases the specie price is given.

The second column gives the lowest and highest prices between the 1st of January and the 1st of May, 1840.

	Per cent.	Per cent.	Capitals paid.
Lafayette B'k, Cincinnati,	60	no sales	$1,000,000
Franklin Bank, "	65	75 to 80	1,000,000
Commercial Bank, "	no sales	85 " 95*	1,000,000
Ohio Life & Trust Co."	65	72 " 80	628,594
Bank of Kentucky,	54	49 " 59	4,679,404
Northern B'k of Kentucky,	80	81 " 85*	2,895,685
Louisville Bank,	80	75 " 80*	1,150,000
Illinois State Bank,	54	55 " 64	
Union Bank of Tennessee,	70	64 " 73*	2,554,939
Planter's Bank of Tenn.	74	72 " 75*	2,247,985
Planter's Bank of Mississippi, Natchez,	50	20 " 33*	4,200,140
Commercial Bank of Natchez,		50	1,507,750
Grand Gulf Bank of Miss.	40	36 " 37	1,467,750
Vicksburgh Bank, Miss.	22	7 " 17	4,000,000
Memphis Bank, Tennessee,	no sales	65*	535,333
N. O. Canal & B'king Co.	"	60 " 70	4,000,000
" " Commercial Bank,	"	70	3,000,000
" " Gas Bank,	"	34*	1,854,455

* These sales were made at Philadelphia, in paper currency, depreciated from 8 to 5 per cent., the range between January and May.

[2] Polk, James K., First Annual Message, December 2, 1845. In a compilation of the *Addresses and Messages of the Presidents of the United States*, edited by Edwin Williams, vol. ii, pp. 1466-1467. In the text from which this selection was trans-

safety of the funds of the Government and the rights of the people," I recommend to Congress that provision be made by law for such separation, and that a constitutional treasury be created for the safekeeping of the public money. The constitutional treasury recommended is designed as a secure depository for the public money, without any power to make loans or discounts, or to issue any paper whatever as a currency or circulation. I can not doubt that such a treasury as was contemplated by the Constitution should be independent of all banking corporations. The money of the people should be kept in the Treasury of the people created by law, and be in the custody of agents of the people chosen by themselves, according to the forms of the Constitution; agents who are directly responsible to the Government, who are under adequate bonds and oaths, and who are subject to severe punishments for any embezzlement, private use, or misapplication of the public funds, and for any failure in other respects to perform their duties. To say that the people or their Government are incompetent or not to be trusted with the custody of their own money in their own Treasury, provided by themselves, but must rely on the presidents, cashiers, and stockholders of banking corporations, not appointed by them nor responsible to them, would be to concede that they are incompetent for self-government.

In recommending the establishment of a constitutional treasury in which the public money shall be kept, I desire that adequate provision be made by law for its safety and that all Executive discretion or control over it shall be removed, except such as may be necessary in directing its disbursement in pursuance of appropriations made by law.[1]

Summary of the Development of Banking: 1830-1860

20.[2] Among the evidences of prosperity and general accumulation of wealth in the United States, the multiplication of banks with increased aggregate capital is one of the most significant. When, as in this country has been generally the case, individual promises representing produce and merchandize, and made available through the instrumentality of banks, are almost the sole means by which commodities pass from the producers to the consumers, the increased action of the banks becomes the index of larger production and more active trade. Where crops and the products of manufacturing industry are more

cribed the words Government and Constitution appear with a small initial letter. A few changes in punctuation have also been introduced.

[1] Editor's Note.—The establishment of an independent treasury had been considered many years before Van Buren recommended that public moneys be kept in the safekeeping of the government instead of being deposited in numerous state-chartered banks. Van Buren's recommendations, made in September, 1837, followed shortly after the disappearance of the Second Bank of the United States. Several attempts to establish an independent treasury met with failure. Finally, however, in 1846, Van Buren's proposals—slightly modified—were put into operation.

[2] *Preliminary Report on The Eighth Census, 1860,* pp. 75-78. Washington, 1862.

abundant, the aggregate amount of paper created by their interchange is larger, and the negotiations of this paper require greater banking facilities. This want usually manifests itself in a more lucrative banking business, which draws more capital into that employment. Such a state of affairs presented itself during the decade which closed with 1860. The bank movement in the United States during that period underwent great expansion without becoming less sound. In that respect it presented a strong contrast to the expansion that occurred in the decade which ended with 1840. In that period a season of speculation in bank stocks and wild lands manifested itself, and the paper created for bank negotiation represented imaginary or speculative values rather than commodities produced. Those values were never realized, and the whole paper system based on them collapsed. If we compare the aggregate features of the banks at each decade with the population and the sum of the imports and exports for corresponding dates, the results are as follows:

Years.	No. of banks.	Capital.	Loans.	Specie.	Circulation.	Import & export.	Population.
1830	330	$145,192,268	$220,451,214	$22,114,917	$ 61,323,898	$144,726,428	12,866,020
1840	901	358,442,692	462,896,523	33,105,155	106,968,572	239,227,465	17,069,453
1843	691	228,861,948	254,544,937	33,505,806	58,563,608	149,090,279	.....
1850	872	227,469,074	412,607,653	48,677,138	155,012,911	330,037,038	23,191,876
1860	1,562	421,880,095	691,945,580	83,594,537	207,102,477	762,288,550	31,445,080

The year 1843 was that of the lowest depression after the extensive liquidation that followed the expansions of 1837-'39. In that year the bank credits were, however, large, as measured by the foreign trade or the sum of the imports and exports, but an internal trade had been developed through the settlements of the western country which required more credits. The operation of the general bankrupt law aided in clearing away the wreck of over two hundred banks that had failed, and which failures involved that of several sovereign States that had loaned their credits for bank capital.

The elements of prosperity were now again active, and banking facilities were required to a greater extent. The severe losses the public had suffered made some more comprehensive guarantee necessary to a full restoration of confidence in bank paper. In New York, in 1838, a new principle had been adopted—that of requiring the banks to deposit security for their circulating notes and holding stockholders liable to an amount equal to the value of their shares. On this basis the banking of New York was thenceforth to operate; and the principle, as its value became recognized, was gradually adopted in other States.

The failure of the Irish harvests of 1846-'47, followed by those of England in 1848-'49 by creating a great demand for American breadstuffs, stimulated business and gave a new impulse to banking. The year 1850 showed an amount of foreign trade more than double that

of 1843. With the increase of business the banks were very prosperous, as is manifest in the fact, that although the capital of the banks was no more in that year than in 1843, their discounts were one hundred and fifty millions, or 60 per cent. greater. Thus the decade opened with a very lucrative banking business, and amid the greatest excitement in relation to the gold discoveries of California. The spirit of enterprise abroad was very strong, and the impression that prices were to rise by reason of the depreciation of gold was prevalent; hence the general desire to operate, in order to avail of the anticipated profits. Industry of all descriptions was very active and productive, and there never was a period when the national capital accumulated so fast, a remarkable evidence of which was afforded in the vast amount expended in the construction of railroads; while, of the large capital accumulated, a considerable portion was employed in banking. The incorporated bank capital increased nearly two hundred millions, and the private bank capital half as much. The report of the Treasury Department gave the latter amount at $118,036,080.

The increase of bank capital was large in the Atlantic cities, particularly in Boston and New York, of which the number and capital were respectively as follows:

	1850.		1860.		Increase.	
	No.	Capital.	No.	Capital.	No.	Capital.
Boston	30	$21,760,000	42	$36,581,700	12	$14,821,700
New York	31	33,600,602	55	69,758,777	24	36,158,175
Total of two cities	61	55,360,602	97	106,340,477	36	50,979,875

. . . . . .

In the States of Illinois, Mississippi, Arkansas and Florida, after the collapse in 1837, no banks were again created up to 1850, and the three last named are still without them, with the exception of two small ones in Florida. Texas has a small bank at Galveston, and Utah, Oregon, and New Mexico have none. In the District of Columbia four old banks expired by limitation of charter in the hands of trustees, and Congress refused to recharter them; but they continue to transact business.

It is probable that a large portion of the increase in banking, particularly at the west, has been due to the introduction of the security system of New York, the idea of which seemed to popularize that which had previously been in bad odor. The following table shows the States which have adopted the free banking principle in whole or in part:

States.	Year adopted.	1860.	
		Stocks held.	Circulation.
New York	1838	$26,897,874	$29,959,506
Michigan	1849	192,831	222,197
New Jersey	1850	962,911	4,811,832
Virginia	1851	3,584,078	9,812,197
Illinois	1851	9,826,691	8,981,723
Ohio	1851	2,153,552	7,983,889
Indiana	1852	1,349,466	5,390,246
Wisconsin	1854	5,031,504	4,429,855
Missouri	1856	725,670	7,884,885
Tennessee	1852	1,233,432	5,538,378
Louisiana	1853	5,842,096	11,579,313
Iowa	1858	101,849	568,806
Minnesota	1858	50,000	50,000
Massachusetts	1859	.....	.....
Total	....	57,951,954	97,212,827

The principle cannot be said to have worked well except in New York, where it required constant alterations for many years to bring it to perfection. In Illinois it was an entire failure, and the new constitutional convention adopted a clause looking to the prohibition of any more banks and to the suppression of the existing circulation.

CHAPTER X

DEVELOPMENT OF THE MEANS OF COMMUNICATION

FOUR stages in the development of transportation may be noted: (1) the turnpike period, (2) the canal period, (3) the steamboat period, and (4) the railway period. That improvements in the means of communication were essential to the economic growth of the nation was clearly indicated by the rapidity with which the country west of the Allegheny Mountains developed shortly after the construction of canals and railways and the utilization of steamboats on a commercial scale became possible. Inadequate as the early means of transportation may appear to us today, it should be borne in mind that most sections of the country—with the exception of the South—were still practically self-sufficient even after the Revolutionary War, although regional specialization, due largely to climatic conditions, forced upon the country even in Colonial days a geographical division of labor in the culture of certain crops, *e.g.*, tobacco, rice, cotton, and sugar. Moreover, in New England, certain industries gained a distinct preëminence long before modern means of communication had become practicable. The breakdown of the isolated economic unit, with the various implications of such a change, did not come until the canal and later the railway had overcome what at one time appeared to be an insurmountable barrier between the Eastern states and the region west of the mountains. Not discouraged by early failures and the ridicule of unimaginative skeptics, courageous pioneers in the use of steam power perfected "devices" which ultimately revolutionized the "face" of the earth.

Development of the means of transportation proceeded rapidly after the Revolution. While most of the roads were in poor condition late in the eighteenth century (Nos. 1-4), a marked improvement set in beginning with the construction of turnpikes by chartered stock companies. Hundreds of such toll roads were built, aiding greatly in the distribution of commodities and the conveyance of passengers. The problem of transportation was not, however, solved by the turnpikes, for the costs of transportation were not infrequently out of proportion to the value of the goods moved. A cheaper means of conveying bulky commodities had to be per-

fected. The advantages of the canal over the turnpike soon became apparent. Canals of minor importance were opened late in the eighteenth century. It was not, however, until the opening of the Erie Canal in 1825 that the construction of canals assumed real importance from an economic standpoint. With unusual energy the building of artificial waterways proceeded. Long after the railway had been perfected and the steamship had gained a foothold on the Atlantic and in American waters (Nos. 12-22), the elaborate network of canals maintained its leadership in the transportation system of the country (Nos. 5-11). Yet, with persistence railway construction forged ahead, crowned in the late 'sixties by the completion of the first transcontinental line (Nos. 23-34), thus eliminating the dependence of the Pacific coast on a circuitous water route and the uncertainties of transportation by land. The economic conquest of the continent was near at hand.

Condition of the Roads—1795-97

1.[1] From Baltimore to Washington, which is forty miles distant, the country wears but a poor appearance. The soil in some parts consists of a yellow clay mixed with gravel; in other parts it is very sandy. In the neighbourhood of the creeks and between the hills are patches of rich black earth, called Bottoms, the trees upon which grow to a large size; but where there is gravel they are very small. The roads passing over these bottoms are worse than any I ever met with elsewhere. In driving over one of them, near the head waters of a branch of Patuxent river, a few days after a heavy fall of rain, the wheels of a sulky which I was in sunk up to the very boxes. For a moment I despaired of being able to get out without assistance, when my horse, which was very powerful, finding himself impeded, threw himself upon his haunches, and disengaging his fore-feet, made a vigorous plunge forwards, which luckily disengaged both himself and the sulky, and freed me from my embarrassment. I was afterwards informed that General Washington, as he was going to meet congress a short time before, was stopped in the very same place, his carriage sinking so deep in the mud that it was found necessary to send to a neighbouring house for ropes and poles to extricate it. Over some of the bottoms, which were absolutely impassable in their natural state, causeways have been thrown, which are made with large trees

[1] Weld, Isaac, Jr., *Travels through the States of North America, and the Provinces of Upper and Lower Canada, During the Years, 1795, 1796, and 1797,* ed. 3, vol. i, pp. 46-47. London, 1800.

Editor's Note.—No foreign traveler recording his "American experiences" has been more painstaking than Isaac Weld (1774-1856), a British subject, who arrived in Philadelphia in 1795. His *Travels through the States of North America* first appeared in 1799. It is replete with interesting experiences and possesses many merits from a literary standpoint.

laid side by side across the road. For a time these causeways afford a commodious passage; but they do not last long, as many of the trees sink into the soft soil, and others, exposed to the continual attrition of waggon wheels in a particular part, breaking asunder. In this state, full of unseen obstacles, it is absolutely a matter of danger for a person unacquainted with the road to attempt to drive a carriage along it. The bridges over the creeks, covered with loose boards, are as bad as the causeways, and totter as a carriage passes over. . . .

2.[1] . . . The roads in this state [Maryland] are worse than in any one in the Union; indeed so very bad are they, that on going from Elkton to the Susquehanna ferry, the driver frequently had to call to the passengers in the stage, to lean out of the carriage first at one side, then at the other, to prevent it from oversetting in the deep ruts with which the road abounds: "Now, gentlemen, to the right"; upon which the passengers all stretched their bodies half way out of the carriage to balance it on that side: "Now, gentlemen, to the left," and so on. This was found absolutely necessary at least a dozen times in half the number of miles. Whenever they attempt to mend these roads, it is always by filling the ruts with saplings or bushes, and covering them over with earth. This, however, is done only when there are fields on each side of the road. If the road runs contiguous to a wood, then, instead of mending it where it is bad, they open a new passage through the trees, which they call making a road. It is very common in Maryland to see six or seven different roads branching out from one, which all lead to the same place. A stranger, before he is acquainted with this circumstance, is frequently puzzled to know which he ought to take. The dexterity with which the drivers of the stages guide their horses along these new roads, which are full of stumps of trees, is astonishing, yet to appearance they are the most awkward drivers possible; it is more by the different noises which they make, than by their reins, that they manage their horses.

3.[2] On the 16th of November I left Philadelphia for Baltimore. The only mode of conveyance which offers for a traveller, who is not provided with his own horses or carriage, is the public stage waggon; it is possible, indeed, to procure a private carriage at Philadelphia to go on to Baltimore, for which a great price is always demanded; but there is no such thing as hiring a carriage or horses from stage to stage. The country about Philadelphia is well cultivated, and it abounds with neat country houses; but it has a bare appearance, being almost totally striped of the trees, which have been cut down without mercy for firing, and to make way for the plough; neither are there any hedges, an idea prevailing that they impoverish the land wherever they are planted. The fences are all of the common post and rail, or of the angular kind. These last are made of rails about eight or nine

[1] *Ibid.*, pp. 37-38.
[2] *Ibid.*, pp. 31-34.

feet long, roughly split out of trees, and placed horizontally above one another, as the bars of a gate; but each tier of rails, or gate as it were, instead of being on a straight line with the one next to it, is put in a different direction, so as to form an angle sufficient to permit the ends of the rails of one tier to rest steadily on those of the next. As these fences, from their serpentine course occupy at least six times as much ground as a common post and rail fence, and require also a great deal more wood, they are mostly laid aside whenever land and timber become objects of importance, as they soon do in the neighbourhood of large towns.

The road to Baltimore is over the lowest of three floating bridges, which have been thrown across the river Schuylkill, in the neighbourhood of Philadelphia. The view on passing this river, which is about two hundred and fifty yards wide, is beautiful. The banks on each side are high, and for many miles above afford the most delightful situations for villas. A very elegant one, laid out in the English taste, is seen on passing the river just above the bridge. Adjoining to it are public gardens, and a house of entertainment, with several good rooms, to which the citizens of Philadelphia resort in great numbers during the summer season.

The floating bridges are formed of large trees, which are placed in the water transversely, and chained together; beams are then laid lengthways upon these, and the whole boarded over, to render the way convenient for passengers. On each side there is a railing. When very heavy carriages go across these bridges, they sink a few inches below the surface of the water; but the passage is by no means dangerous. They are kept in an even direction across the river, by means of chains and anchors in different parts, and are also strongly secured on both shores. Over that part of the river where the channel lies, they are so contrived that a piece can be removed to allow vessels to pass through. These bridges are frequently damaged and sometimes entirely carried away, during floods, at the breaking up of winter, especially if there happens to be much ice floating in the river. To guard against this, when danger is apprehended and the flood does not come on too rapidly, they unfasten all the chains by which the bridge is confined in its proper place, and then let the whole float down with the stream to a convenient part of the shore, where it can be hauled up and secured.

The Stage Coach—1788

4.[1] The carriage is a kind of open waggon hung with double curtains of leather and woolen, which you raise or let fall at pleasure: it is not well suspended. But the road was so fine, being sand and gravel, that we felt no inconvenience from that circumstance. The horses are good, and go with rapidity. These carriages have four

[1] Brissot de Warville, J. P., *New Travels in the United States of America Performed in 1788,* pp. 172-176. Dublin, 1792. See note p. 149.

benches, and may contain twelve persons. The light baggage is put under the benches, and the trunks fixed on behind. A traveller who does not choose to take the stage, has a one-horse carriage by himself.

Let the Frenchmen who have travelled in these carriages, compare them to those used in France; to those heavy diligences, where eight or ten persons are stuffed in together; to those cabriolets in the environs of Paris, where two persons are closely confined, and deprived of air, by a dirty driver, who torments his miserable jades: and those carriages have to run over the finest roads, and yet make but one league an hour. If the Americans had such roads, with what rapidity would they travel? Since, notwithstanding the inconvenience of the roads, they now run ninety-six miles in a day. Thus, with only a century and a half of existence, and opposed by a thousand obstacles, they are already superior to people who have been undisturbed in their progress for fifteen centuries.

You find in these stages, men of all professions. They succeed each other with rapidity. One who goes but twenty miles, yields his place to one who goes farther. The mother and daughter mount the stage to go ten miles to dine; another stage brings them back. At every instant, then you are making new acquaintances. The frequency of these carriages, the facility of finding places in them, and the low and fixed price, invite the Americans to travel. These carriages have another advantage, they keep up the idea of equality. The member of Congress is placed by the side of the shoemaker who elected him: they fraternize together, and converse with familiarity. You see no person here taking upon himself those important airs, which you too often meet with in France. In that country, a man of condition would blush to travel in a diligence: it is an ignoble carriage; one knows not with whom he may find himself. Besides, it is in style *to run post;* this style serves to humiliate those who are condemned to a sad mediocrity. From this inequality, result envy, the taste for luxury, ostentation, an avidity for gain, the habit of men and guilty measures to acquire wealth. It is then fortunate for America, that the nature of things prevents this distinction in the mode of travelling.

The artizan, or the labourer, who finds himself in one of these stages with a man in place, composes himself, is silent; or if he endeavours to rise to the level of others by taking part in the conversation, he at least gains instruction. The man in place has less haughtiness, and is facilitated in gaining a knowledge of the people.

The son of Governor Livingston was in the stage with me; I should not have found him out, so civil and easy was his air, had not the tavern-keepers from time to time addressed him with respectful familiarity. I am told that the governor himself often uses those stages. You may have an idea of this respectable man, who is at once a writer, a governor, and a plowman, on learning that he takes a pride in calling himself a new Jersey farmer.

The American stages, then, are the true political carriages. I know

that the *petits maîtres* of France would prefer a gay well-suspended chariot; but these carriages roll in countries of Bastilles, in countries afflicted with great inequality, and consequently with great misery.

The road from New-York to Newark is in part over a marsh: I found it really astonishing; it recalls to mind the indefatigable industry of the ancient Dutch settlers, mentioned by Mr. de Crevecœur. Built wholly of wood, with much labour and perseverance in the midst of water, on a soil that trembles under your feet, it proves to what point may be carried the patience of man, who is determined to conquer nature.

The Era of Canal Construction

5.[1] Immediately after the acknowledgment of the independence of the American colonies by England in 1783, several companies were formed in the two principal states of the Union, those of New York and Pennsylvania, for the purpose of constructing a system of canals. These enterprises were accordingly commenced, but on a scale too limited for the attainment of the ultimate objects; and as the United States advanced in commercial prosperity, more extensive plans were adopted. In 1807 the senate charged the Secretary of State, Mr. Gallatin, to prepare a project for a general system of intercommunication by canals, based upon the geographical character of the territory of the Union.

A system of artificial water communication was accordingly projected, which, with some modifications, was at a later period adopted and carried into execution.

These projects, however, suffered an interruption from the renewal of the war in 1812; and it was not until five years later that the vast works were commenced, the result of which has been a system of inland navigation which is without a rival in any country in the world.

6.[2] The merits of a general plan for a commercial channel, by which to connect the East and West, suited to the wants of the two different sections of the country, were not involved in the question of route. Virginia, prior to the Revolution, was the richest, most populous, and most central of the colonies, and her tide-waters most nearly approached the navigable waters of the Ohio. It was taken for granted that the appropriate route for such a work lay through her territory; but at that time our people had neither the engineering skill nor the experience, nor were they sufficiently acquainted with the topography of the mountain ridge separating the great western valley

[1] Lardner, Dionysius, *Railway Economy . . .*, p. 365. London, 1850.

Editor's Note.—Dionysius Lardner was born in Dublin in 1793. As a physicist and writer on scientific subjects he won an enviable reputation. In 1828 he was appointed Professor of Natural Philosophy and Astronomy in London University. Twelve years later (1840) he visited Cuba and the United States—where he remained for five years.

[2] Communication from the Secretary of the Treasury—Washington, 1853. 32nd Cong., 1st Sess., Senate, Ex. Doc. 112, p. 276.

from the Atlantic slope, to decide upon the question of route. As they became better acquainted with the country, it was ascertained that the best route for *a canal* connecting the navigable water-courses separated by the Alleghanies lay farther north; and it was reserved for New York first to realize the idea of General Washington, and thereby secure to itself the vast benefits the result of which he foresaw, and which, before the Revolution, he sought to secure to Virginia. For years after General Washington proposed his plan, our western settlements did not extend beyond the Ohio; and, in fact, all the country west of the Mississippi was claimed by a foreign power. The vast regions now filled with a numerous and thriving population, comprising the States of Ohio, Indiana, Illinois, Missouri, Iowa, and Wisconsin, were not only a wilderness, but the idea that they would ever be densely occupied by civilized man was regarded as chimerical. The principal settlements beyond the mountains were those most contiguous to Virginia, and what is now Kentucky was then a part of the "Old Dominion." The rapid settlement of Ohio and the adjacent States, after the war of 1812, changed the aspect of affairs in the West. The preponderating interest and influence extended northward of the first settlements, and the State of New York was the first to open an improved line of commercial communication between the Atlantic and the Great West. A canal was discovered to be practicable through her territory, and the genius and public spirit of her statesmen stimulated her legislators to make use of this advantage, securing to her the chief interior trade.

7.[1] The present generation, enjoying as it does, the daily benefits of the Erie Canal, can hardly realize the difficulties which its projectors were obliged to encounter. Our population was small, and thinly scattered, even along the Atlantic border. The city of New York with less than a hundred thousand inhabitants, had found its occupation mainly on the ocean, and in foreign commerce,—and its leading men knew little and cared less for the Great Interior. The West, destined to become the true and unfailing source of its power and greatness, was lying dormant around a remote chain of distant inland Lakes, but dimly seen and feebly appreciated. When therefore, the project was announced some forty years ago of constructing a Canal from the Hudson River—not to Lake Ontario, but the remote waters of Lake Erie—the idea was treated as purely chimerical; and it is among the most curious facts in its early history, that while few of the merchants and capitalists of the city of New York afforded it

[1] Ruggles, Samuel B., *Vindication in 1849 of the Canal Policy of New York of 1838,* pp. 7–11. New York, 1849.

Editor's Note.—Samuel Ruggles (1800-1881) was admitted to the bar in 1821. He took an active interest in the problems of commercial expansion—devoting a great deal of time to the advocacy of an extension of the Erie Canal. At one time Ruggles served as chairman of the Committee on Ways and Means (New York Assembly) which prepared a detailed *Report Upon the Finances and Internal Improvement of the State of New York.*

encouragement or sympathy, and still less pecuniary support, one of its earliest and most efficient advocates was an unfortunate debtor, then actually within the jail limits of the County of Ontario.

In the city of New York, Mr. Clinton, lately its Mayor, stood all but alone, and it was not until the 15th of April, 1817, after eight years' struggle, in which he was aided mainly by clear-headed and far-sighted friends in Western New York, that the law for the construction of the canal, after a conflict of great severity, was passed through the Legislature. The whole delegation from the city of New York, to a man, voted against it. Nearly all the conservative portion of the community joined in the opposition, and a learned lawyer from one of the river counties, more eminent, on that occasion, for the readiness of his wit than the strength of his judgment, on hearing it stated in debate, that the Canal could not be supplied with water, exclaimed from his seat in the Assembly, "*Give yourself no trouble,—the tears of our constituents will fill it!*" The project instantly became the subject of violent party conflict, and in no quarter did it receive more violent and malignant opposition than in the city of New York.

It was during these struggles, that the political parties which even yet agitate the State, found their origin and early organization. Mr. Silas Wright, junior, since elected Governor, and Mr. Azariah C. Flagg, the late Comptroller, came into public life, the active opponents of Mr. Clinton. In the year 1824, they were found in the State Legislature, one in the Senate, the other in the Assembly.

During the seven eventful years, between the commencement of the Canal in 1817, and its near approach to completion in 1824, the work had been vigorously pushed onward by Mr. Clinton, though met by opposition at every stage of its progress. He had retired from the office of Governor in 1823, but from the earliest surveys and first exploration of the route in 1810, to that day, he had held the honorary post of Canal Commissioner, but without salary or emolument. On the last day of the session of the Legislature in 1824, his adversaries, having a majority in both branches, carried through a joint resolution, removing him from that post. It was supported by Mr. Wright, in the Senate, and Mr. Flagg in the Assembly.

The shock which this event produced throughout our whole community is well remembered. As a deliberate, intentional, cold-blooded insult, to a great public benefactor, it roused the sensibilities of every generous and manly nature throughout the State. Mr. Clinton was instantly put in nomination for re-election as Governor in the coming autumn,—and although his adversaries put in opposition, Colonel Samuel Young, one of the Canal Commissioners, and at the time supposed to be friendly to the Canal, Mr. Clinton swept him from the field by an immense majority.

From this epoch, the careful reader of our State Documents will find no difficulty in following the Canal history. In the large and liberal view of Mr. Clinton, the Erie Canal, however valuable as the

main commercial artery of the State, needed the contributions which lateral Canals, extending like veins into our more interior recesses, would bring into harmonious and profitable action. He accordingly recommended successive additions to the system, which should connect with the main line, tributaries from Lake Ontario and the Black River, —from the productive and populous districts around the Cayuga and Seneca Lakes, and from the more remote but not less fruitful regions of the Genesee, the Susquehanna and the Alleghany.

This was the origin of our system of lateral canals, and from the moment of their construction they became the theme of every species of invective and attack, which official ingenuity or party malignity could devise.

Disregarding their palpable effects, in swelling the revenues of the main line, and the general commerce of the State, their tolls have always been studiously kept separate from those of the Erie Canal, which they enrich: the whole population of the region they traverse, has been publicly denounced as "sturdy beggars"; while the expenses of their construction and necessary maintenance have been, and still are, most carefully and perseveringly paraded by their opponents, as a perpetual burthen upon the treasury of the State.

In 1827, Mr. Wright being still in the State Senate, gave the signal for attack, and in his elaborate and celebrated financial report of that year, made war upon the whole Canal system, declaring, as his successors and followers have since so incessantly done, that "the actual income of the Canals was *highly exaggerated*";—that "*payment of the State debt* was not even approaching,"—(the Erie Canal had only been finished two years,) and that "unless aided by auxiliary funds, the Canals *could not redeem their debt* within any reasonable time, if *they would ever do it*," that "the debt with the whole aid of those funds, could not be paid off, in a *great number of years*";—and finally, that any appropriations for other works, unless *they should be more profitable than the Erie and Champlain Canals*, "must hasten the period, when *direct taxation* must be resorted to!"

The *formula* thus furnished by Mr. Wright, has been faithfully copied, and echoed by the disciples of his political school from that to the present hour; but the fact has not quite borne out his prediction. The Erie and Champlain Canal debt, which he declared could not be paid off in a great number of years, was fully discharged and cancelled in July, 1836, being nine years after the date of his report, and if now existing in full, could be paid with less than four years' revenues of the Erie Canal.

8.[1] At Schenectady you may take passage in a canal boat; and I

[1] Lieber, Francis, *The Stranger in America,* pp. 198-200. Philadelphia, 1835.

Editor's Note.—Francis Lieber (1800-1872) came to the United States from Prussia in 1827. In 1835 he was appointed Professor of History and Political Economy in South Carolina College, a position which he held until 1856; he was then made Professor at Columbia College—where he remained until his death in

would advise every traveller, who has not yet seen the Grand Canal, to do so. The valley of the Mohawk, along which the canal goes as far as Rome, is, in many parts, very beautiful, and seen to much greater advantage from the canal boat than from a stage-coach; and it is well worth the while to become acquainted with this great work —a clamp by which the west of this union is tightly fastened to the east and north; one of the great siphons which equalizes prices and wages in this vast country, and thus contributes not a little to the stability of our political existence. It is, indeed, as yet, the greatest monument which this part of the world affords, of man's conquering superiority over matter. Yet, perhaps, it will be outstripped by the noble communication which Pennsylvania is leading over mountains and through valleys westward to the Ohio, and which, if finished, will prove for ever the boldness of its projector. On the other hand, the New York canal was the first of these extensive works;—a fact which will remain a great testimony in the history of civilization, in favor of the state which gave it birth. It shows Göthe's good sense, that the progress of this canal interested him so much. I will send you, by the next opportunity, a copy of the Laws of the State of New York in Relation to the Erie and Champlain Canals, &c., Albany, 1825, where you will find, in detail, an official history of these great works. The study of this undertaking has been a source of deep interest to me, and I doubt not it will be so to you. I shall add Darby's View of the United States, which will give you a much more accurate view of the geological character of these parts of the country, than an account of mine could afford you; and as the natural features of the United States do not change quite as rapidly as the statistics, the book will be still valuable when you receive it. As to the statistics, an author, I should almost think, would feel tempted to say nothing about them, and follow the example of the editors of the New Hampshire Laws, published by Authority, in 1830, who thought fit to put the following sagacious notice on the title page of their collection. "This edition comprehends all the general and public statutes now in force, *excepting* an act passed the 3d day of January, 1829, entitled 'An act establishing a board of road commissioners for laying out and repairing highways,' *which is omitted under the expectation that it will be repealed at the ensuing session of the Legislature.*" For our statistics and every feature imprinted upon the country by civilization are continually undergoing so rapid changes, that what was true a year ago, may be antiquated today.

These immense canals send branches into many directions, by which they are connected with navigable rivers, lakes and roads, nor is this system by any means completed. Branch canals and rail-roads are continually adding; nay, rail-roads are building along the canal, as if there were no end to American activity. Thus the building of a rail-

1872. Lieber was a voluminous writer. He was a careful observer whose training made him an excellent chronicler.

road from Albany to Utica, will soon begin, the company being already incorporated. Could but a little of this quickness in practical perception, and boldness in embarking in the most daring enterprises, be engrafted upon German steadiness and thoroughness, it would produce fine fruits indeed. But it must be remembered, how different an aspect all Germany would present, were she not chopped into pieces, and could enterprise as freely work its way into all directions as in this extensive and untrammelled country.

When the canal was first opened, farmers, whose property lay close to this great blood-vessel of the state, had their own barges to carry their produce to advantageous markets; but the navigation of all kinds, for goods and passengers, who required good acommodations, became within a short time so brisk, that private navigation, if I can use this expression as contradistinguished to company navigation, soon ceased. There are yet many proprietors of single barges, but they make a business of canal navigation; no farmers, as I understand, have any longer boats for their own use.—You know that the state derives a very great revenue from this source.

It is interesting to see how this easy intercourse makes, we might almost say, one place out of many habitations, at distances from one another, which would otherwise be considered great. It is likewise worthy of attention, that, whereas, in the common course of things, the vender is usually stationary and the buyer goes to him; here, on the other hand, as in the primary stages of society, the seller moves from place to place—a way of trafficking which extends to the smallest details; it is, if you choose to call it so, an aquatic peddling.

Even knowledge is brought in this way within the reach of the inhabitants of detached houses, by floating circulating libraries. On the Mississippi, this system of hawking has been extended, in some branches, still farther. There are on that river several floating companies of actors. They sail in their flat boats, fitted up for theatres, from plantation to plantation, perform, and break up when their receipts do not warrant a longer stay. . . .

9.[1] Previous to the construction of the canal [Erie canal], the cost of transportation from Lake Erie to tide-water was such as nearly to prevent all movement of merchandise. A report of the committee of the legislature, to whom was referred the whole subject of the proposed work, consisting of the most intelligent members of that body, dated March 17, 1817, states that at that time the cost of transportation *from* Buffalo to Montreal was $30 per ton, and the *returning* transportation from $60 to $75. The expense of transportation from Buffalo to New York was stated at $100 per ton, and the ordinary length of passage *twenty days;* so that, upon the very route through which the heaviest and cheapest products of the West are now sent to market, the cost of transportation equalled nearly *three* times the

[1] Communication from the Secretary of the Treasury—Washington, 1853. 32nd Cong., 1st Sess., Senate, Ex. Doc. 112, pp. 278-279.

market value of wheat in New York; *six* times the value of corn; *twelve* times the value of oats; and far exceeded the value of most kinds of cured provisions. These facts afford a striking illustration of the value of internal improvements to a country like the United States. It may be here stated, as an interesting fact, that prior to the construction of the Erie canal, the wheat of western New York was sent down the Susquehanna to *Baltimore*, as the cheapest and best route to market.

Although the rates of transportation over the Erie canal, at its opening, were nearly double the present charges—which range from $3 to $7 per ton, according to the character of the freight—it immediately became the convenient and favorite route for a large portion of the produce of the northwestern States, and secured to the city of New York the position which she now holds as the emporium of the Confederacy. Previous to the opening of the canal, the trade of the West was chiefly carried on through the cities of Baltimore and Philadelphia, particularly the latter, which was at that time the first city of the United States in population and wealth, and in the amount of its internal commerce.

As soon as the lakes were reached, the line of navigable water was extended through them nearly one thousand miles farther into the interior. The western States immediately commenced the construction of similar works, for the purpose of opening a communication, from the more remote portions of their territories, with this great water-line. All these works took their direction and character from the Erie canal, which in this manner became the outlet for almost the greater part of the West.

It is difficult to estimate the influence which this canal has exerted upon the commerce, growth, and prosperity of the whole country, for it is impossible to imagine what would have been the state of things without it. But for this work, the West would have held out few inducements to the settler, who would have been without a market for his most important products, and consequently without the means of supplying many of his most essential wants. That portion of the country would have remained comparatively unsettled up to the present time; and, where now exist rich and populous communities, we should find an uncultivated wilderness. The East would have been equally without the elements of growth. The canal has supplied it with cheap food, and has opened an outlet and created a market for the products of its manufactures and commerce. The increase of commerce, and the growth of the country, have been very accurately measured by the growth of the business of the canal. It has been one great bond of strength, infusing life and vigor into the whole. Commercially and politically, it has secured and maintained to the United States the characteristics of a homogeneous people.

10.[1] The Erie canal secured to the city of New York the trade of

[1] *Ibid.*, p. 289.

the interior, because it occupied the *only* route practicable for such a work. So long, therefore, as canals continued the most approved of known modes of transportation, the superior position of that city in reference to the internal trade of the country remained unquestioned. Such is now no longer the case. For travel, and for the transportation of certain kinds of merchandise, the superiority of railroads is admitted. It is also claimed that they can successfully compete with the canal in heavy freights. However this may be, the correctness of the assumption is admitted by the construction of railroads parallel to all the canals, for the purpose of competing for the business of the latter. The conviction is now almost universal, that commercial supremacy is to be secured and maintained by this new agency, which neutralizes, to a great extent, the advantages arising from the accidents of position; and that the commerce of the country is still a prize for the competition of all cities which may choose to enter the lists. Influenced by these views, all the great commercial towns have either completed, or are constructing, stupendous lines of railroad, with the confident expectation of securing to *each* a portion of the trade which, up to the present time, has been almost entirely monopolized by *one*.

Survey of Canals Constructed—1839

11.[1] Great improvements have been introduced in the inland navigation of the United States within the last twenty years, both by removing impediments that have obstructed river navigation, and by the construction of canals. More than two thousand five hundred miles of canal have been constructed in the country, and numerous works of this description are now in progress, though the rail-road has perhaps, in most instances, been preferred, where the circumstances admitted of a choice. Our description of the principal canals in the country must be limited to a mere enumeration of the most important particulars.

Canals in New England.—The *Cumberland and Oxford* canal extends from Portland to Sebago pond, and was completed in 1829. Its length is twenty and a half miles; its width at the surface is thirty-four feet, at the bottom, eighteen; its depth is four feet. The number of its locks is twenty-six. A lock is also constructed in Songo river, by which navigation is continued into Brandy and Long ponds, making the whole natural and artificial water communication fifty miles.

Middlesex canal was completed in 1808, and opens a water communication between Boston and the central part of New Hampshire, by its junction with the Merrimack river. It has but one summit level, one hundred and four feet above Boston harbor, and thirty-two above the level of the Merrimack, at the place where it unites with that river in Chelmsford, above Pawtucket falls, on which are situated the great manufacturing establishments of Lowell. Its length is twenty-

[1] Mellen, Grenville, ed. *A Book of the United States,* pp. 379-386. Hartford, 1839. See note p. 34.

seven miles, breadth at the surface thirty feet, at the bottom twenty; its depth of water is three feet, and locks are twenty. It has seven aqueducts over streams and rivers, and fifty bridges, with stone abutments twenty feet apart. Around the numerous falls of the river, within the limits of New Hampshire, the following canals have been constructed:—*Bow* canal, completed in 1812, is one third of a mile long, and passes a fall of twenty-five feet with four locks; *Hooksett* canal, fifty rods in length, passes Hooksett falls by three locks, with a lockage of sixteen feet; *Amoskeag* canal, eight miles below the above, passes a fall of the same name, by a lockage of forty-five feet, with nine locks; *Union* canal, immediately below Amoskeag, overcomes seven falls in the river, and has seven locks in nine miles.

Pawtucket canal, in the town of Lowell, is used not only for passing a fall of the same name, but also for supplying very extensive hydraulic works. It is a mile and a half in length, ninety feet wide, and four feet deep, overcoming a difference of level of thirty-two feet.

In 1811, a charter, that has been subsequently renewed, was granted to a company for the purpose of constructing a canal from Winnipisiogee lake to Cocheco river, below the landing at Dover. The distance is twenty-seven miles. The waters of the lake are four hundred and fifty-two feet above the level of the river, and the fall would require fifty-three locks. The expense has been estimated at about three hundred thousand dollars.

The *Blackstone* canal extends from Worcester, Massachusetts, to Providence, Rhode Island. It is forty-five miles long, and follows in the greater part of its course the valley of the Blackstone or Pawtucket river, from which it is supplied with water. Its fall from the summit at Worcester to tide water at Providence, is four hundred and fifty-one and six tenths feet. It has forty-eight locks, eighty feet long by ten wide; the breadth at its surface is thirty-four feet, at the bottom eighteen; depth of water, four feet. It was built by an incorporated company, under charter from the legislatures of the states in which it lies, at a cost of about six hundred thousand dollars. It was finished in the autumn of 1828. This canal facilitates and greatly increases the trade from the northern part of Rhode Island, and the central parts of Massachusetts, to the markets of Providence, New York, and the middle and southern states.

The *Farmington* canal was commenced in 1825, upon the plan of connecting, by a line of seventy-eight miles of artificial navigation, Connecticut river, at Northampton, in Massachusetts, with New Haven harbor. It is thirty-six feet broad at the surface, twenty at the bottom, and four feet in depth. The locks are eighty feet in the clear, and twelve feet wide. It extends fifty-eight miles, from New Haven to Southwick ponds, on the boundary of Massachusetts, and cost about six hundred thousand dollars. In continuation of this work, the *Hampshire and Hampden* canal has been constructed in Massachusetts, as far as Westfield; it is to be continued twenty miles, to Northampton,

and perhaps even to Barnet, in Vermont. The difference of level in this canal is two hundred and ninety-eight feet.

Enfield, *South Hadley*, *Montague*, and *Bellows Falls* canals are short cuts at the different falls on the Connecticut river. The first was built by a company incorporated in 1824. It extends around the falls of the same name, in the state of Connecticut, and is five and a half miles in length. It has two stone locks of ten feet lift, each ninety feet by twenty, and is used for extensive hydraulic works, as well as for navigation. Before the construction of this work, these rapids were passed in boats, but offered great obstructions to the navigation of the river. *South Hadley* canal was constructed for passing a fall of forty feet in the town of the same name, in Massachusetts, and is two miles in length. There is a cut in this canal through the solid rock, three hundred feet long and forty feet deep. The company that undertook this work was incorporated in 1792. *Montague* canal, in the town of the same name, in the same state with the preceding, and constructed for passing Montague falls, is three miles long, twenty-five feet wide, and three deep. *Bellows Falls* canal, in Vermont, opposite the town of Walpole, is half a mile long, with nine locks, overcoming a fall of about fifty feet. Several other short canals have been constructed on the western bank of the Connecticut in this state, for the purpose of improving the navigation of the river.

New York Canals.—The state of New York has an extensive system of inland artificial navigation, connecting the navigation of the Hudson with that of the lakes and Delaware river. The *Champlain* canal in this state passes from Albany to Whitehall, on lake Champlain, and is seventy-two miles in length. It is four feet deep, twenty-eight feet wide at the bottom, and forty at the surface. It has twenty-one locks, and its rise and fall amount to one hundred and eighty-eight feet. This work was commenced in October, 1817, and was opened for navigation in November, 1819. The whole cost was nearly one million two hundred thousand dollars.

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Oswego canal is a branch of the Erie, extending from Salina to Oswego, connecting lake Ontario with the Erie canal. It is thirty-eight miles in length, having one hundred and twenty-three feet of lockage, all descending to lake Ontario. One half the distance is a canal connected with Oswego river by locks and dams; the other half is a slack-water navigation on the river. It cost five hundred and twenty-five thousand, one hundred and fifteen dollars. The *Cayuga and Seneca* canal, extending from Geneva, on Seneca lake, to Montezuma, on Erie canal, is one half canal, and one half slack-water navigation. It was constructed in 1828. Its length is twenty miles and forty-four chains; the descent from Seneca lake to Montezuma is seventy-three and a half feet. The four canals last described were

constructed at the expense of the state, and still remain under the administration of the state government as public property.[1]

Chemung canal, another work of the state, extends from the head waters of Seneca lake to the Chemung (or Tioga) river. It is eighteen miles in length, with a navigable feeder of thirteen miles from Painted Post, on the Chemung river, to the summit level, making in the whole thirty-one miles of canal navigation. On this canal are fifty-three locks of wood, three aqueducts, and seventy bridges. It was completed in 1832.

The *Delaware and Hudson* canal company was incorporated in April, 1823, with a capital of a million and a half of dollars, for the purpose of constructing a canal and rail-road from the Hudson river to the coal mines in Luzerne county, Pennsylvania. The canal extends from the tide-water of the Hudson to Honesdale, Wayne county, Pennsylvania, a distance of one hundred and eight miles, when it meets the rail-road. The canal is from thirty-two to thirty-six feet wide, and four feet deep. The most important article of transport upon this canal is coal, of which forty-three thousand two hundred tons were

Aggregate cost,		$10,946,443.68
"	tolls in 1830,	1,056,799.67
"	tolls in 1831,	1,222,801.90

The canal tolls received in the month of July, 1833, amounted to the sum of one hundred and forty-seven thousand, eight hundred and ninety-nine dollars; exceeding, by forty-two thousand, two hundred and eighty-two dollars, and two cents, the sum collected in the corresponding month the preceding year. The following is a comparison of the tolls for July on all the canals of the state, for 1832 and 1833, to wit:

Canal.	1833.	1832.	Increase since 1832.
Erie,	$125,488.04	$91,747.57	$33,740.47
Champlain,	17,293.94	11,112.23	6,181.71
Cayuga and Seneca,	2,084.63	1,890.03	194.60
Oswego,	3,032.72	1,867.48	2,165.24
	$147,899.33	$106,617.31	$42,282.02

The receipts for tolls to the close of July, are greater by *one hundred thousand, five hundred and twenty-two dollars, and ninety-eight cents,* than they were for the same period last year. Some estimate of the great increase of business upon the canals may be formed from the fact, that the diminution in the rates of toll, operating upon the articles which were transported upon the canals in 1832, would probably diminish the aggregate amount of tolls one hundred and fifty thousand dollars for the whole season. At the diminished rates of toll, such has been the increase of articles transported, that in three months and eight days, the aggregate amount exceeds that of the corresponding months of 1832, by the sum of more than *one hundred thousand dollars.*

brought down in 1830. In 1831, the amount of tolls, exclusive of that of coal boats, was nineteen thousand, five hundred dollars.

The *Harlem* canal company was incorporated in April, 1826, with

[1] Aggregate length of the canals, including eight miles of navigable feeders, 492 miles.

a capital of five hundred and fifty thousand dollars. This canal is to extend from Hudson to East River, through Manhattan island; its length is three miles, its width sixty feet, and its depth six or seven. It is to be walled with stone on both sides, and to have a street on each side fifty feet wide its whole length, with a lock at each end to command the tide water.

New Jersey.—The *Morris* canal was commenced in 1825, and extends from Jersey city, on the Hudson, across the state of New-Jersey, to Delaware river, opposite Easton, Pennsylvania, where it unites with Lehigh canal. It is one hundred and one miles in length, with rise and fall of one thousand, six hundred and fifty-seven feet; of which two hundred and twenty-three are overcome by twenty-four locks, and the remaining one thousand, three hundred and thirty-four feet by twenty-three inclined planes. This canal is supplied with water from Hopatcong lake, situated nine hundred feet above tide-water. The cost is estimated at somewhat more than one million, one hundred thousand dollars. The *Delaware and Raritan* canal, extending from Lamberton, on Delaware river, to New Brunswick, on the Raritan, is thirty-eight miles in length. It is seventy-five feet wide, and seven feet deep.

Pennsylvania.—The canal system of this state is very extensive, and has been in a great measure established by the state government. We shall first notice the canals constructed by private corporations. The *Schuylkill* canal was commenced in 1816, and has been in operation for a number of years. It extends from Philadelphia to Reading, and thence to mount Carbon. Its length is one hundred and ten miles, and in this distance is a lockage of six hundred and twenty feet. It comprises thirty-one dams, one hundred and twenty-five locks, seventeen arched aqueducts, a tunnel of four hundred and fifty feet in length, cut through the solid rock, and sixty-five toll and gate houses. The whole cost of this work, up to January 1, 1830, was two million, three hundred and thirty-six thousand, three hundred and eighty dollars. The *Union* canal was constructed in 1827. It extends from Middleton, on the Susquehanna, to the head of the Girard canal, two miles below Reading, connecting the waters of the Susquehanna with those of the Schuylkill. Its length is eighty miles, exclusive of Swatara feeder, which extends twenty-four miles. The works comprehend a tunnel, eighteen feet wide, fourteen high, and seven hundred and twenty-nine in length; two summit reservoirs, containing twelve million cubic feet of water; two steam engines, each of one hundred horse power; one hundred and thirty-five bridges; twelve small and two large aqueducts; ninety-two cut stone locks; and fourteen miles of protection wall of stone. Connected with this canal is a rail-road, about four miles in length, extending from the basin at Pine grove to the coal mines. The cost of the whole work was about two million dollars. The *Lackawaxen* canal commences at the termination of the Delaware and Hudson canal, near Carpenter's point, and unites with a rail-road at Honesdale. It is thirty-six miles in length. In junction with the Delaware and Hud-

son canal, this canal opens a navigation of one hundred and seventeen miles, including seventeen miles of Lackawaxen river. The *Lehigh* canal company was incorporated in 1818, and constructed a canal from Easton, on Delaware river, to Stoddartsville, connecting Morris canal with the Mauch Chunk rail-road. Its length is forty-six and three fourths miles, and it cost one million, five hundred and fifty-eight thousand dollars. The *Conestoga* canal extends eighteen miles., from Safe Harbor, on Susquehanna river, to Lancaster. *Conewago* canal is two and a half miles long, and is constructed about a fall of the same name on the Susquehanna.

The following table exhibits a view of the canals in Pennsylvania, constructed by the state, prior to the first of January, 1831, with the amount expended for ordinary and extraordinary repairs during the year 1831.

	Length miles.	Ordinary repairs.	Extraord. repairs.	Total.
Delaware division,	59 3-4	$10,000	$87,339	$97,339
Columbia, east division,	10	1,658	7,316	8,974
Harrisburg line,	63	3,108	6,216	9,324
Susquehanna division,		5,855	11,709	17,964
North branch do.	55 1-2	18,584	37,168	55,752
West branch do.	24 1-2	6,699	13,397	20,096
Juniata do.	89	22,326	44,651	66,977
Western do.	105	24,406	48,812	73,218
French creek feeder,	19 1-2	74	4,327	4,401
Total,	426 1-4	$92,708	$260,936	$353,644

The main trunk of this system of canals commences at Columbia, at the termination of the Philadelphia and Columbia rail-road, and extends thence westward one hundred and seventy-two and a half miles, till it meets the Alleghany Portage rail-road at Holidaysburg. It recommences at the western extremity of the rail-road, and continues westward one hundred and five miles, to the Monongahela river at Pittsburg.

The following canals, constructed by the state, have been but recently completed:

Frankstown line of the Juniata division, extending from Huntingdon to Holidaysburg, is thirty and one third miles in length, including about fifteen and three fourths miles of slackwater navigation. *Beaver* division commences upon the Ohio river, at the mouth of Big Beaver, and extends to Newcastle. Length, twenty-four and three-fourths miles, of which about two thirds are slackwater and towing-path. *Franklin* line commences on Alleghany river, at the mouth of French creek, and extends up the latter stream till it meets the French creek feeder. Length, twenty-two and one fourth miles, seventeen of which are slackwater and towing-path. *Lycoming* line commences at Muncy

dam, and extends up the west branch of the Susquehanna, and terminates at the Big island, opposite to the mouth of the Bald Eagle. Length, forty-one and one fourth miles, of which about ten miles are slackwater. *Wyoming* line of the North branch division commences at the Nanticoke dam, and extends up the North branch, and terminates near the mouth of Lackawannock creek. Length, sixteen miles.

Delaware and Maryland.—The *Chesapeak and Delaware* canal was commenced in 1824, and completed in about five years. It is thirteen and five eighths miles long, ten feet deep, and sixty-six feet wide at the surface. Leaving the Delaware, forty-five miles below Philadelphia, it crosses the peninsula, and meets Chesapeak bay. The summit level is twelve feet above tide water. The whole cost of this work was two million, two hundred thousand dollars. *Port Deposit* canal is a public work of the state of Maryland, extending ten miles along a line of rapids, on the east bank of the Susquehanna, north of the boundary line of Maryland and Pennsylvania. There are two short canals, one of twelve hundred yards, and one of two and a half miles, around the Great and Lower Falls of the Potomac.

The *Chesapeak and Ohio* canal company received their charter from Virginia in 1824, and it was confirmed in the following year by Maryland and congress. The proposed length is three hundred and forty-one and one fourth miles, from the tide water of the Potomac river, above Georgetown, in the district of Columbia, to its termination near Pittsburg, Pennsylvania. Its depth is six or seven feet, its breadth at the bottom fifty, and at the surface from sixty to eighty feet. Five miles from Georgetown, arrangements have been made for constructing branches to Alexandria, Baltimore, and the navy yard at Washington. The amount of lockage required on the whole canal is three thousand, two hundred and fifteen feet. At the summit level on the Alleghany mountain, a tunnel is required, four miles and eighty yards long, with a deep cut of one thousand and sixty yards at the western end, and another of fourteen yards at the eastern end, each of which opens into a large basin. The original estimate of the cost was twenty-two million, three hundred and seventy-five thousand dollars.

Ohio.—This state has been active and liberal in the encouragement of canals as public works. The state canals are the *Ohio* and the *Miami.* The *Ohio* canal connects lake Erie, at Cleaveland, with the Ohio river, at Portsmouth; its main trunk is three hundred and ten miles in length; its lateral branches and feeders make twenty-four in addition. *Miami* canal connects the town of Dayton, situated on the Great Miami river, with the Ohio river, at Cincinnati. Its main trunk is sixty-five miles in length, and it has a side-cut of one mile. The total length of canals in Ohio, constructed at the public expense, and owned by the state, is four hundred miles. The *Lancaster Lateral* canal is nine miles in length, and was constructed by an incorporated company. The expense of the Ohio canals has been about five million dollars.

Virginia and North Carolina.—At the city of Richmond is the *James River* canal, around a fall, with twelve locks, overcoming an ascent of eighty feet, and connecting tide water with a basin on Shockoe hill. From this basin proceeds a canal two and a half miles long, uniting with the river. Three miles further up is a short canal, with three locks, overcoming a fall of thirty-four feet. The *James and Jackson River* canal extends from the basin at Richmond, to a fall in Goochland county, a distance of thirty and a half miles. There is also a canal seven miles long, around the falls on James river, in Rockland county. Canals have also been constructed to improve the navigation of the Shenandoah. The *Dismal Swamp* canal is twenty-two and a half miles long, lying partly in Virginia, and partly in North Carolina. It connects the waters of Chesapeak bay with Albemarle sound, extending from Deep creek to Joyce's creek, at the head of Pasquotank river. The expense of this canal was three hundred and sixty thousand dollars, of which two hundred thousand were subscribed by the United States. The *Danville and Dan River* canals are a series of improvements upon the upper branches of Roanoak river. The *North West, Weldon, Clubfoot and Harlow, Cape Fear, Yadkin, Tar River, New River* and *Catawba* canals, have done much to improve the inland navigation of North Carolina. The *Santee, Columbia*, and *Saluda* canals, from Columbia, through the Columbia canal into Broad river, and through the Saluda canal, from Broad into Saluda river, through Drehr and Zorick's canals, on to the Abbeville county line, near Cambridge; also from Santee river, by the Santee canal, into Cooper's river, and down this river to the port at Charleston, present a mixed navigation of one hundred and fifty miles. *Winyaw* canal is ten miles in length, uniting the Santee river with Winyaw bay.

Kentucky.—The *Louisville and Portland* canal passes from the Ohio at Louisville, to a point of the same below the rapids, a distance of three miles. It is constructed for the accommodation of large vessels, and the general government have contributed towards its completion.

Georgia and Louisiana.—The *Savannah and Ogatchee* canal is sixteen miles in length, passing from Savannah river, at Savannah, to the Ogatchee river; hence it is to be continued to the Alatahama. The *Carondelet* canal is a short cut to admit small vessels into a basin in the rear of New Orleans, extending from bayou St. John. It is only a mile and a half long, and is without locks. The *Lafourche* is a small canal, supplied with water only when the Mississippi is in flood, uniting the outlet of Lafourche with the chain of lakes and creeks which lead into the lower Teche, and opens the commerce of Attacapas to New Orleans. The *Plaquemine* canal passes from the Mississippi into Bayou Plaquemine, at its efflux from the Mississippi, and is navigable only at times of high flood. The *New Orleans and Teche River* canal is a projected navigation of one hundred miles, from a point on the

Mississippi, to the waters which unite with the Teche river, at Berwick's bay.

"The spirit of enterprise," says Mr. Smith, "has been displayed on a scale commensurate with the extensive territory of the United States. With the exception of Great Britain and Holland, no country on the face of the globe contains so many or as extensive canals as this republic; and the whole of combined Europe has not effected as much during the last sixteen years, as the three states of Pennsylvania, New York and Ohio only. The total number of miles of canals in the union is two thousand, five hundred and twenty-six, including about two hundred and sixty-four which are nearly finished, and which will be navigable during the ensuing spring, (1833). Several extensive canals are in progress, and an immense number of projected or authorized works are not included in the summary just given. Nearly three fifths of the aggregate amount have been executed in the three states above mentioned."

Steam Navigation: Some Early American Experiments

12.[1] In 1782, James Rumsey, of Virginia, invented a plan for propelling boats by steam, and in 1784 obtained from the legislature of Virginia the exclusive right of navigating with such boats. In 1788 he published his project, with numerous certificates from some of the leading characters in Virginia, among whom was General Washington. His project asserted that a steamboat was actually constructed, which moved with half her burden on board, at the rate of three or four miles an hour, against the current of the Potomac, although the machinery was in a very imperfect state.

In 1785, John Fitch, a poor uneducated watchmaker in Philadelphia, conceived the design of propelling a boat by steam. He applied to Congress for assistance, but was refused; he offered, without success, his invention to the Spanish government, to be used in the navigation of the Mississippi. A company was formed for the building of a steamboat, and in 1788, his vessel was launched on the Delaware.

Mr. Fitch, instead of wheels, used oars, which worked in frames. When the boat was ready for trial, she started off for Burlington. "Those," says Judge Hall, "who had sneered, began to stare, and they who had smiled in derision, looked grave." Away went the boat, and the happy inventor triumphed over the scepticism of an unbelieving public. The boat performed her trip to Burlington, a distance of twenty miles; but unfortunately burst her boiler in rounding to the wharf at that place, and the next tide floated her back to the city. Fitch persevered, and with great difficulty procured another boiler. After some time, the boat performed another trip to Burlington and Trenton, and returned in the same day. She is said to have moved at the rate of eight miles an hour; but something was continually break-

[1] Macgregor, John, *The Progress of America, from the Discovery by Columbus to the Year 1846,* vol. ii, pp. 754–755. London, 1847. See note p. 143.

ing, and the unhappy projector only conquered one difficulty to encounter another. Fitch became embarrassed with debt, and was obliged to abandon the invention, after having satisfied himself of its practicability.

This ingenious man wrote three volumes, which he sealed up, in manuscript, and deposited in the Philadelphia library, to be opened thirty years after his death. It is recorded that he died and was buried near the Ohio. His three volumes were opened about twelve years ago, and were found to contain his speculations on mechanics. He detailed his embarrassments and disappointments. He confidently predicted the future success of the plan, which, in his hands, failed only for the want of pecuniary means. He prophesied that in less than a century we should see the western rivers swarming with steamboats; and then expressed his wish to be buried on the shores of the Ohio, "where the song of the boatman would enliven the stillness of his resting-place, and the music of the steam-engine soothe his spirit." A feeling very natural to the mind of an ardent projector, whose whole life had been devoted to one object; but which it was not his fate or fortune to accomplish. In one of his journals he says, "the day will come when some more powerful man will get fame and riches from my invention; but nobody will believe that *poor John Fitch* can do any thing worthy of attention." In less than thirty years after his death, his predictions were verified. He died about the year 1799.[1]

13.[2] In 1787, Mr. Patrick Miller, of Dalwinston, Scotland, designed a double vessel, propelled by a wheel placed in the stern between the two keels. This boat is said to have been very successful, but it was very small, the cylinder being only four inches in diameter. In 1789, Mr. Miller produced a larger vessel on the same plan, which made seven miles per hour in the still water of the Forth and Clyde Canal, but it proved too weak for its machinery, which had to be taken out.

It was in the face of these failures that Fulton applied himself to the task of designing a successful steamboat. During his residence in Paris he had made the acquaintance of Mr. Robert R. Livingston, then

[1] Editor's Note.—Although far from mechanically perfect, Fitch's steamboat made regular trips between Philadelphia and Gray's Ferry for a period of four months in the summer of the year 1790. Commercially this venture proved a failure. It remained for others, notably Robert Fulton, to invent a commercially practicable steamboat. His steamer, the *Clermont,* in 1807 made a voyage on the Hudson from New York to Albany in thirty-two hours, an event of great importance in the early history of navigation. Within a few years (1811) Fulton had constructed a steamboat for use on the Ohio River. Six years later a trip upstream from New Orleans to Louisville was made, marking the beginning of a new epoch in transportation on the navigable waterways of the United States.

[2] McCabe, James D., Jr., *Great Fortunes, and How They Were Made; or the Struggles and Triumphs of Our Self-Made Men,* pp. 261-70. Philadelphia, 1871.

Editor's Note.—In addition to his work on *Great Fortunes,* James McCabe (1842-1883) was the author of a number of historical books: a *History of the Late War Between Germany and France* (1871); *The Great Republic* (1872); and a *History of the Grange Movement.*

the American minister in France, who had previously been connected with some unsuccessful steamboat experiments at home. Mr. Livingston was delighted to find a man of Fulton's mechanical genius so well satisfied of the practicability of steam navigation, and joined heartily with him in his efforts to prove his theories by experiments. Several small working models made by Fulton convinced Mr. Livingston that the former had discovered and had overcome the cause of the failure of the experiments of other inventors, and it was finally agreed between them to build a large boat for trial on the Seine. This experimental steamer was furnished with paddle wheels, and was completed and launched early in the spring of 1803. On the very morning appointed for the trial, Fulton was aroused from his sleep by a messenger from the boat, who rushed into his chamber, pale and breathless, exclaiming, "Oh, sir, the boat has broken in pieces and gone to the bottom!" Hastily dressing and hurrying to the spot, he found that the weight of the machinery had broken the boat in half and carried the whole structure to the bottom of the river. He at once set to work to raise the machinery, devoting twenty-four hours, without resting or eating, to the undertaking, and succeeded in doing so, but inflicted upon his constitution a strain from which he never entirely recovered. The machinery was very slightly damaged, but it was necessary to rebuild the boat entirely. This was accomplished by July of the same year, and the boat was tried in August with triumphant success, in the presence of the French National Institute and a vast crowd of the citizens of Paris.

This steamer was very defective, but still so great an improvement upon all that had preceded it, that Messrs. Fulton and Livingston determined to build one on a larger scale in the waters of New York, the right of navigating which by steam vessels had been secured by the latter as far back as 1798. The law which granted this right had been continued from time to time through Mr. Livingston's influence, and was finally amended so as to include Fulton within its provisions. Having resolved to return home, Fulton set out as soon as possible, stopping in England on his return, to order an engine for his boat from Watt and Boulton. He gave an exact description of the engine, which was built in strict accordance with his plan, but declined to state the use to which he intended putting it.

Very soon after his arrival in New York, he commenced building his first American boat, and finding that her cost would greatly exceed his estimate, he offered for sale a third interest in the monopoly of the navigation of the waters of New York, held by Livingston and himself, in order to raise money to build the boat, and thus lighten the burdens of himself and his partner, but he could find no one willing to risk money in such a scheme. Indeed, steam navigation was universally regarded in America as a mere chimera, and Fulton and Livingston were ridiculed for their faith in it. The bill granting the monopoly held by Livingston was regarded as so utterly absurd by the Legislature of

New York, that that wise body could with difficulty be induced to consider it seriously. Even among scientific men the project was considered impracticable. A society in Rotterdam had, several years before Fulton's return home, applied to the American Philosophical Society to be informed whether any and what improvements had been made in the construction of steam-engines in America. A reply to this inquiry was prepared, at the request of the Society, by Mr. Benjamin H. Latrobe, a distinguished engineer. The following extracts from this paper will show the reader how Fulton's scheme was regarded by one who was confessedly one of the most brilliant engineers of his day, and who has since accomplished so much for the improvement of steam travel:

> During the general lassitude of mechanical exertion which succeeded the American Revolution, the utility of steam-engines appears to have been forgotten; but the subject afterward started into very general notice in a form in which it could not possibly be attended with success. A sort of mania began to prevail, which, indeed, has not yet entirely subsided, for impelling boats by steam-engines. Dr. Franklin proposed to force forward the boat by the immediate application of the steam upon the water. Many attempts to simplify the working of the engine, and more to employ a means of dispensing with the beam in converting the *libratory* into a rotatory motion, were made. For a short time, a passage-boat, rowed by a steam-engine, was established between Bordentown and Philadelphia, but it was soon laid aside. The best and most powerful steam-engine which has been employed for this purpose—excepting, perhaps, one constructed by Dr. Kinsey, with the performance of which I am not sufficiently acquainted—belonged to a gentleman of New York. It was made to act, by way of experiment, upon oars, upon paddles, and upon flutter-wheels. Nothing in the success of any of these experiments appeared to be sufficient compensation for the expense and the extreme inconvenience of the steam-engine in the vessel.
>
> There are, indeed, general objections to the use of the steam-engine for impelling boats, from which no particular mode of application can be free. These are:
>
> First. The weight of the engine and of the fuel.
>
> Second. The large space it occupies.
>
> Third. The tendency of its action to rack the vessel, and render it leaky.
>
> Fourth. The expense of maintenance.
>
> Fifth. The irregularity of its motion, and the motion of the water in the boiler and cistern, and of the fuel-vessel in rough water.
>
> Sixth. The difficulty arising from the liability of the paddles and cars to break, if light, and from the weight, if made strong.

> Nor have I ever heard of an instance, verified by other testimony than that of the inventor, of a speedy and agreeable voyage having been performed in a steamboat of any construction.
>
> I am well aware that there are still many very respectable and ingenious men who consider the application of the steam-engine to the purpose of navigation as highly important, and as very practicable, especially on the rapid waters of the Mississippi, and who would feel themselves almost offended at the expression of an opposite opinion. And, perhaps, some of the objections against it may be avoided. That founded on the expense and weight of the fuel may not, for some years, exist on the Mississippi, where there is a redundance of wood on the banks; but the cutting and loading will be almost as great an evil.

Scientific men and amateurs all agreed in pronouncing Fulton's scheme impracticable; but he went on with his work, his boat attracting no less attention and exciting no less ridicule than the ark had received from the scoffers in the days of Noah. The steam-engine ordered from Boulton and Watt was received in the latter part of 1806; and in the following spring the boat was launched from the ship-yard of Charles Brown, on the East River. Fulton named her the "Clermont," after the country-seat of his friend and partner, Chancellor Livingston. She was one hundred and sixty tons burthen, one hundred and thirty feet long, eighteen feet wide, and seven feet deep. Her engine was made with a single cylinder, two feet in diameter, and of four feet stroke; and her boiler was twenty feet long, seven feet deep, and eight feet broad. The diameter of the paddle-wheels was fifteen feet, the boards four feet long, and dipping two feet in the water. The boat was completed about the last of August, and she was moved by her machinery from the East River into the Hudson, and over to the Jersey shore. This trial, brief as it was, satisfied Fulton of its success, and he announced that in a few days the steamer would sail from New York for Albany. A few friends, including several scientific men and mechanics, were invited to take passage in the boat, to witness her performance; and they accepted the invitation with a general conviction that they were to do but little more than witness another failure.

Monday, September 10, 1807, came at length, and a vast crowd assembled along the shore of the North River to witness the starting. As the hour for sailing drew near, the crowd increased, and jokes were passed on all sides at the expense of the inventor, who paid little attention to them, however, but busied himself in making a final and close inspection of the machinery. Says Fulton, "The morning I left New York, there were not, perhaps, thirty persons in the city who believed that the boat would ever move one mile per hour, or be of the least utility; and while we were putting off from the wharf, which was crowded with spectators, I heard a number of sarcastic remarks."

One o'clock, the hour for sailing, came, and expectation was at its

highest. The friends of the inventor were in a state of feverish anxiety lest the enterprise should come to grief, and the scoffers on the wharf were all ready to give vent to their shouts of derision. Precisely as the hour struck, the moorings were thrown off, and the "Clermont" moved slowly out into the stream. Volumes of smoke and sparks from her furnaces, which were fed with pine wood, rushed forth from her chimney, and her wheels, which were uncovered, scattered the spray far behind her. The spectacle she presented as she moved out gradually from her dock was certainly novel to the people of those days, and the crowd on the wharf broke into shouts of ridicule. Soon, however, the jeers grew silent, for it was seen that the steamer was by degrees increasing her speed. In a little while she was fairly under weigh, and making a steady progress up the stream at the rate of five miles per hour. The incredulity of the spectators had been succeeded by astonishment, and now this feeling gave way to undisguised delight, and cheer after cheer went up from the vast throng. Many people followed the boat for some distance up the river shore. In a little while, however, the boat was observed to stop, and the enthusiasm of the people on the shore at once subsided. The scoffers were again in their glory, and unhesitatingly pronounced the boat a failure. Their chagrin may be imagined when, after a short delay, the steamer once more proceeded on her way, and this time even more rapidly than before. Fulton had discovered that the paddles were too long, and took too deep a hold on the water, and had stopped the boat for the purpose of shortening them.

Having remedied this defect, the "Clermont" continued her voyage during the rest of the day and all night, without stopping, and at one o'clock the next day ran alongside the landing at Clermont, the seat of Chancellor Livingston. She lay there until nine the next morning, when she continued her voyage toward Albany, reaching that city at five in the afternoon, having made the entire distance between New York and Albany (one hundred and fifty miles) in thirty-two hours of actual running time, an average speed of nearly five miles per hour. On her return trip, she reached New York in thirty hours running time—exactly five miles per hour. Fulton states that during both trips he encountered a head wind.

The river was at this time navigated entirely with sailing vessels, and large numbers of these were encountered by the "Clermont" during her up and down trips. The surprise and dismay excited among the crews of these vessels by the appearance of the steamer was extreme. These simple people, the majority of whom had heard nothing of Fulton's experiments, beheld what they supposed to be a huge monster, vomiting fire and smoke from its throat, lashing the water with its fins, and shaking the river with its roar, approaching rapidly in the very face of both wind and tide. Some threw themselves flat on the deck of their vessels, where they remained in an agony of terror until the monster had passed, while others took to their boats and made for the

shore in dismay, leaving their vessels to drift helplessly down the stream. Nor was this terror confined to the sailors. The people dwelling along the shore crowded the banks to gaze upon the steamer as she passed by. A former resident of the neighborhood of Poughkeepsie thus describes the scene at that place, which will serve as a specimen of the conduct of the people along the entire river below Albany:

"It was in the early autumn of the year 1807 that a knot of villagers was gathered on a high bluff just opposite Poughkeepsie, on the west bank of the Hudson, attracted by the appearance of a strange, dark-looking craft, which was slowly making its way up the river. Some imagined it to be a sea-monster, while others did not hesitate to express their belief that it was a sign of the approaching judgment. What seemed strange in the vessel was the substitution of lofty and straight black smoke-pipes, rising from the deck, instead of the gracefully tapered masts that commonly stood on the vessels navigating the stream, and, in place of the spars and rigging, the curious play of the working-beam and pistons, and the slow turning and splashing of the huge and naked paddle-wheels, met the astonished gaze. The dense clouds of smoke, as they rose wave upon wave, added still more to the wonderment of the rustics.

"The strange-looking craft was the 'Clermont,' on her trial trip to Albany; and of the little knot of villagers mentioned above, the writer, then a boy in his eighth year, with his parents, formed a part. I well remember the scene, one so well fitted to impress a lasting picture upon the mind of a child accustomed to watch the vessels that passed up and down the river.

"The forms of four persons were distinctly visible on the deck as she passed the bluff—one of whom, doubtless, was Robert Fulton, who had on board with him all the cherished hopes of years, the most precious cargo the wonderful boat could carry.

"On her return trip, the curiosity she excited was scarcely less intense. The whole country talked of nothing but the sea-monster, belching forth fire and smoke. The fisherman became terrified, and rowed homewards, and they saw nothing but destruction devastating their fishing-grounds; while the wreaths of black vapor, and rushing noise of the paddle-wheels, foaming with the stirred-up waters, produced great excitement among the boatmen, which continued without abatement until the character of that curious boat, and the nature of the enterprise which she was pioneering, had been understood."

The alarm of the sailors and dwellers on the river shore disappeared as the character of the steamer became better known; but when it was found that the "Clermont" was to run regularly between New York and Albany, as a packet-boat, she became the object of the most intense hatred on the part of the boatmen on the river, who feared she would entirely destroy their business. In many quarters Fulton and his invention were denounced as baneful to society, and frequent attempts

were made by captains of sailing vessels to sink the "Clermont" by running into her. She was several times damaged in this way, and the hostility of the boatmen became so great that it was necessary for the Legislature of New York to pass a law declaring combinations to destroy her, or wilful attempts to injure her, public offenses punishable by fine and imprisonment.

It had been supposed that Fulton's object was to produce a steamer capable of navigating the Mississippi River, and much surprise was occasioned by the announcement that the "Clermont" was to be permanently employed upon the Hudson. She continued to ply regularly between New York and Albany until the close of navigation for that season, always carrying a full complement of passengers, and more or less freight. During the winter she was overhauled and enlarged, and her speed improved. In the spring of 1808 she resumed her regular trips, and since then steam navigation on the Hudson has not ceased for a single day, except during the closing of the river by ice.

In 1811 and 1812, Fulton built two steam ferry-boats for the North River, and soon after added a third for the East River. These boats were the beginning of the magnificent steam ferry system which is today one of the chief wonders of New York. They were what are called twin-boats, each of them consisting of two complete hulls, united by a deck or bridge. They were sharp to both ends, and moved equally well with either end foremost, so that they could cross and recross without being turned around. These boats were given engines of sufficient power to enable them to overcome the force of strong ebb tides; and in order to facilitate their landing, Fulton contrived a species of Floating dock, and a means of decreasing the shock caused by the striking of the boat against the dock. These boats could accommodate eight four-wheel carriages, twenty-nine horses, and four hundred passengers. Their average time across the North River, a mile and a half wide, was twenty minutes.

14.[1] A few hours after, we visited some of the steam-boats which ply between Albany and New York. The largest, called the Car of Commerce, is provided with excellent apartments, and makes her trip in nineteen hours. This vessel is extremely elegant, but my friend Tromp is of opinion that the English steam-boats are superior in machinery. In fact, in this country, the American steam-engines are not celebrated for the safety of their boilers; and several explosions which have occurred, serve to increase this evil report. From this reason, as well as on account of the disagreeable motion of the steam-engine, many persons were unwilling to risk their lives, so that they have attached a safety-barge to one of the steam-boats. This is a

[1] Bernhard, Duke of Saxe-Weimar Eisenach, *Travels through North America, during the years 1825 and 1826,* vol. i, pp. 59-60. Philadelphia, 1828.

Editor's Note.—Duke Bernhard (1792-1862), whose work appeared in two volumes, was a keen observer of American life. His experiences and observations are clearly and interestingly recorded.

real floating hotel, furnished with the greatest luxury. In the ladies cabin there are even silk curtains. Besides this, the ladies have a separate toilette and parlour. The gentlemen assemble in the dining room. The whole boat is surrounded by a piazza, which, in warm weather, must be extremely pleasant. The name of this safety-barge which carries passengers at four dollars, is Lady Clinton, in honour of the wife of the governor of New York, De Witt Clinton. We also visited the Constellation, another beautiful steam-boat, which has no safety-barge. There are also steam-boats for the purpose of towing the common sloops, &c. up and down the river, called steam-tow-boats.

Finally, we examined the horse-ferry-boats. These boats consist of two vessels joined together, have a common deck, and are of an elliptical form. Upon the centre of the deck is a round house, in which six horses work, turning a horizontal, which moves two common wheels between the boats, provided with paddles, as in the steam-boats. The carriage, and twenty-two two-horse carts crossed at the same time, standing on both sides of the round house. . . .

15.[1] On the morning of the 14th of August, we took passage on board the Albany, one of the canal packet-boats, for Lake Erie. This canal was built at an expense of $2,500,000, and will be completed in about four weeks: at present, they are at work only on the western part of it. During the preceding year, they received an income of $300,000, and they expect, during the present year, after the canal shall have been completed, an income of $500,000, so that the expenses will, in a very short time, be replaced, and the state realize an immense profit, unless it be necessary to make great repairs, which I have no doubt will be the case, and will consequently require a large share of this income. Hitherto the great canal system was unknown in the United States, and was rather unpopular. It might have been expected, therefore, that so great and rapid an undertaking, would have a tendency to astound, if we may so speak, the public mind; so that this canal was finished as soon as possible, without calling to aid the great experience possessed by other nations. Notwithstanding, this canal, which is three hundred and sixty-two miles in length, with eighty-three locks, between the Hudson and Lake Erie, which lies six hundred and eighty-eight feet above the level of the former river, does the greatest honour to the genius of its projector; though one who has seen the canals in France, Holland, and England, will readily perceive, that the water-works of this country afford much room for improvement. The canal is thirty-five feet wide on the surface, twenty-eight feet at the bottom, and four feet deep, so that none but flat vessels and rafts can sail on it. The packet-boat which took us to Schenectady, was seventy feet long, fourteen feet wide, and drew two feet of water. It was covered, and contained a spacious cabin, with a kitchen, and was very neatly arranged. On account of the great number of locks, the progress of our journey was but slow: our packet-boat went only

[1] *Ibid.*, pp. 61-62.

at the rate of three miles an hour, being detained at each lock, on an average, four minutes. The locks are fourteen feet wide above the surface, and have a fall from seven to twelve feet. The packet-boat was drawn by three horses, which walked upon a narrow tow-path leading along the canal, and beneath the numerous bridges which are thrown over it. These bridges, of which there are about three hundred between Albany and Utica, are all built of wood, and in a very awkward style; most of them belong to the farmers, and are intended to serve as a means of communication between their fields. The distance from Albany to Schenectady, by land, is only fifteen miles, and persons are enabled to travel it in a very short time in the stage-coach; but as we were anxious to see the canal, and get leisure to complete our journals, we preferred going by water, twenty-eight miles.

16.[1] We were now steaming up the beautiful river Hudson, on our way to Albany, at the rate of fifteen miles an hour, with two or three hundred passengers—a hundred more or less can hardly be distinguished in these capacious vessels. A dreadful accident had occurred but a few days before by the striking on a rock of the steamer "Swallow," opposite the town, or city (I beg its pardon), called Hudson, by which many passengers were drowned; and it was truly a melancholy sight to see the wreck lying broadside on the rock. It was the fault of the pilot; for the captain, it appears, has nothing to do with the care of the navigation, but every boat is left in the charge of a pilot, who sits up aloft near the head or bows of the vessel, in a neat little glass office, monarch of all he surveys, and by means of his only companion—a large wheel—he steers the ship in safety. Unlike our steamers, where the helmsman always stands at the stern, and can see nothing but the passengers' hats, the American steersman always occupies an elevated little room on the top deck, close to the head of the vessel, and enjoys an uninterrupted sight of everything before him and around him; and as he is shut in with the windows of his little office, up or down according to the state of the weather, nobody can talk to him or interfere with him, and nobody scarcely knows that there is such a being on board. He has two, or sometimes three, little bells that ring in the engine-room, by which he communicates his orders to the engineer, such as "Go on," "Back astern," "Easy," "Stop her," &c.

The lowest room in the steamer is the dining room, a long and spacious saloon, communicating with the kitchen on deck, through a sort of spout, by which the dishes are sent hot from the fire. The deck over the saloon contains the ladies' cabin, a large and handsomely furnished place, in which a hundred ladies might sit or lounge without being at all crowded; the remainder of this deck is for promenading fore and aft all through the vessel; and you see in gilt letters over

[1] Rubio (Thomas Horton James), *Rambles in the United States and Canada During the Year 1845*, pp. 77-78. London, 1846.

Editor's Note.—The author of this volume leaves no room for misunderstanding his impressions of America—which are not always favorable.

various rooms on each side—"Captain's room," "Clerk's office," "Barber's shop," "Bar," for the sale of fruit and drinks; and very often may be seen three or four well-dressed itinerant merchants, who, in the true spirit of American enterprise, as they are going a journey of business, begin at the beginning, and, whether it be umbrellas, type for marking linen, &c. they manage to do a little trade, and pay their current expenses by selling their respective wares amongst the passengers.

Navigation on the Ohio Before the Advent of the Steamboat

17.[1] The first thing to be attended to by emigrants or traders wanting to descend the river, is to procure a boat, to be ready so as to take advantage of the times of flood, and to be careful that the boat be a good one: For many of the accidents that happen in navigating the Ohio, are owing to the unpardonable carelessness or penuriousness of the boat builders, who will frequently slight their work, or make their boats of injured plank; in either case, putting the lives and properties of a great many people at manifest hazard. This egregious piece of misconduct, should long before this time have been rectified, by the appointment of boat inspectors at the different places, where boats are built. But as this has never been done, it behooves every purchaser of a Kentucky boat, which is the sort here alluded to, to get it narrowly examined before the embarkation, by persons who are well acquainted with the strength and form of a boat suitable for a voyage of this kind.

The principal places where families and merchants stop to prepare for embarkation, are Brownsville, (or Redstone) Pittsburgh, and Wheeling. There are people in each of those places that make it their business to accommodate strangers descending the river with every article they may want, either in provisions, farming utensils, boats, or other crafts, &c. at a cheap and reasonable price. There are large boat-yards at each of these places, and their boats are generally well made and strong, the price of which varies according to their make, length, and strength; one convenient for a family, between 30 and 40 feet in length, costs from 1 dollar to 1 dollar and 25 cents per foot, making perhaps 35 dollars for a comfortable family boat, well boarded up on the sides, and roofed to within seven or eight feet of the bow; exclusive of this expense, is the price of a cable, pump, and fire place, perhaps ten dollars more. Boats may also be had sometimes at New Geneva, Williamsport, Elizabethtown, and M'Keesport, on the Monongahela; and at some places on the Youghiogheny river; also at the mouth of Big Beaver, and Charlestown, on the Ohio, and perhaps a few other places. The Allegheny is now beginning to furnish boats, which descend that river in high water loaded with salt, boards, and lumber, and sell at Pittsburgh generally at a reduced price.

[1] *The Navigator; containing directions for navigating the Monongahela, Allegheny, Ohio and Mississippi Rivers;* etc., pp. 34-39. Pittsburgh, 1814.

The number of embarkations, and their conveniences, which take place at Brownsville, Pittsburgh, and Wheeling, depend much on the different stages of the water in the different seasons: The first place is about 10 miles the nearest to the western waters from the eastward; and when the waters will suit, it saves length of road to take water there:—but the waters must be pretty well up to make embarkation safe at Brownsville; therefore, stopping there when the waters are really low, is attended with much loss of time, and of course expense.—Boats can go from Pittsburgh at a much lower stage of the water than they can from Brownsville; yet there are periods, and these generally happen from about the middle of July until the beginning of October, when embarkation at either place would be attended with considerable detention. Wheeling, therefore, is the safest point to strike at in very low stages of the water, and from thence boats may go at all seasons of the year. It is about 58 miles by land from Brownsville. Pittsburgh is preferred as a place of embarkation to Wheeling, when boats can descend from it, for two reasons: first, it is about 45 miles nearer Philadelphia or Baltimore; and secondly, merchants and travellers say they are better accommodated here with storage for their goods, and all other conveniences they may stand in need of, than they could be at Wheeling; therefore, they seldom go there, except in cases of very low water, embarking either at Brownsville or Pittsburgh. But families wishing to cross the Ohio, with their wagons, generally cross at Wheeling, Charlestown, Georgetown, and Big Beaver, according to the direction of the country they are about to remove to. Those destined to the country N. W. of the Allegheny river, and on lake Erie, and bordering the boundary between Pennsylvania and Ohio, generally cross the Allegheny at Pittsburgh.

The best seasons for navigating the Ohio, are in spring and autumn. The spring season commences at the breaking up of the ice, which generally happens about the middle of February, and continues good for about three months and sometimes four. The fall season generally commences in October, and continues good until the first of December, and sometimes all through that month; when the ice begins to form and the river close. But the seasons of high water can scarcely be called periodical, as they vary considerably, according to the wetness or dryness of the season, or earliness or lateness of the setting in, or breaking up of winter.

. . . . . .

As frequent landing is attended with considerable loss of time and some hazard, you should contrive to land as seldom as possible; you need not even lie by at night, provided you trust to the current, and keep a good look out: if you have moon light so much the better. When you come to, the strength of your cable is a great safeguard. A quantity of fuel, and other necessaries should be laid in at once, and every boat ought to have a canoe or skiff along side, to send on shore, when necessary, or as a relief in case of accident.

Although the labour of navigating the Ohio in times of high water is very inconsiderable to what it is when it is low, when continual rowing is necessary, it is always best to keep a good look out, and be strong handed. The wind will sometimes drive you too near the points of islands, or on projecting parts of the main shore, or into a bend where there is but little current, in either case considerable exertions are necessary to get you under way again, and keep you clear of danger either on the one side or the other. You will frequently meet with head winds, the river being so very crooked as that which is in your favour one hour, may be directly against you the next; and when contrary winds contend with a strong current, it is attended with considerable inconvenience, and requires careful and circumspect management, or you may be driven on shore in spite of all your efforts. One favorable circumstance is, that the wind commonly abates about sunset, particularly in summer.

Boats, have frequently passed from Pittsburgh to the mouth of the Ohio in 15 days in high water; but in general, 10 days to the falls is reckoned a quick passage; but sometimes a boat will be 2 weeks in going to Limestone, and in a very low state of water, 20 days.

. . . . . .

The best mode perhaps in descending the Ohio, in time of low water, is in keel boats. These seem to be more at immediate command in navigating the river; and as they are always strongly manned, they go with greater expedition. They draw little water and require but a narrow channel. Merchants are beginning to prefer this method for safety and expedition; and instead of purchasing boats and taking charge of them themselves, they get their goods freighted down from Pittsburgh in keel boats by the persons who make them, and who make it their business to be prepared, with good boats and experienced hands, for such engagements.

This method is the safest, if not the cheapest, for this special reason: the cargo is consigned to the care of an experienced and careful man, who perhaps descends and ascends the river twice or thrice in the course of one season, and of course must be well acquainted with all the difficulties in navigating it.—On the contrary, when merchants are young, and inexperienced, they do not, often enough, as the Scotch phrase goes, "*Look before they loup.*" They, being flushed with the idea of a fortune before them, hastily buy a boat, load, jump into it themselves, fly to the steering oar, and halloo to the hands to *pull out.* Now swimming in good water, and unapprehensive of the bad, they think themselves safe, until alarmed by the rumbling of the boat on a ripple, or shoving herself into the mud on a sandbar.—And until now they believed themselves from having gone down the river once or twice, to have been master navigators, and capable of conducting a ship of 400 tons with equal ease and safety as a common Indian canoe.—Such are the mistaken calculations of the extent of our own knowledge and

abilities.—And in common life, it does not unfrequently happen, that we run our ship aground, when we think she has most water to ride in.

As the trimming your boat, that is, loading her in such a manner as to draw an equal depth of water all around, is of considerable consequence to her safety, you ought to be careful to have it done before departure with a circumspect eye. For though the construction of our boats does not render them liable to overset, yet when loaded irregularly, and one corner sunken more than another, a stroke on a rock, or a log on the diagonal corner, subjects her to fill in that quarter much sooner than if properly trimmed.

There is another precaution which ought not to be neglected; that is, to see that your boat is kept afloat while loading, and when you bring to over night; for if the cable corner should rest on the shore, and during the night, the river should fall much, ten to one but before morning your boat would be filled with water. From a neglect of this kind I have seen a valuable cargo of dry goods sunk and much injured, before the boat was completely loaded.

The Steamboat on the Ohio and Mississippi Rivers

18.[1] This morning the steam boat Vesuvius intended as a regular trader between New Orleans and the falls of Ohio, left Pittsburg. A considerable fresh in the river renders it probable, that notwithstanding the great size and draft of the vessel, she will pass the falls without difficulty, after which she will meet with no obstruction in the rest of her passage. There is now on the stocks here, just ready to be launched, a boat adapted to the navigation of the Ohio above the falls, which will be finished in time to meet the Vesuvius on her return from New Orleans at the falls. The boats are built by Mr. Fulton, under the agency of Messrs. Livingston and Latrobe, for companies, who have vested very large capitals in the establishment. The departure of the Vesuvius is a very important event, not only for this place but for the whole western part of the union, and its influence will be felt over the whole of the United States.—In describing it, it is not necessary to use the inflated language, which unfortunately for the credit of our trade, too often renders real facts incredible, or at least lowers their importance by the manner in which they are puffed into notice.

It does not require the ornament of metaphor to impress upon the public mind the incalculable advantage of an intercourse by water, effected in large vessels, which move with certainty and rapidity through an extent of internal navigation embracing a space almost as large as the whole continent of Europe, and comprising in it, the productions of almost every climate. This intercourse, though now only in its infancy, must in a few years, become of immense magnitude. About three years ago a steam boat of 400 tons burthen was built

[1] Niles: *The Weekly Register,* vol. vi, pp. 197-198 (1814). See note pp. 58-59.

Editor's Note.—This selection is an extract from a letter to the editors of the *National Intelligencer,* dated Pittsburgh, April 22, 1814.

here, and now navigates the Mississippi, between New Orleans and Natchez. The Vesuvius, which, with another boat of the same size and construction now building, is intended to form the second link in this chain of navigation, is of 480 tons burthen, carpenter's measurement. She has 160 feet keel, 28 feet 6 inches beam, and will, when loaded draw from 5 to 6 feet of water. The whole of her hold below deck, excepting a neat cabin for ladies, and the space occupied by her machinery, is appropriated to the cargo. On her deck is built what in a ship would be called a round house, extending nearly half her length and elegantly fitted up as a cabin, having twenty-eight double berths on each side. Previously to her departure she had been several times tried in going up and down the Monongahela and Ohio for 4 or 5 miles, and performed very satisfactorily. This morning (Saturday, April 23,) every thing being in perfect order, she passed at 10 o'clock up the Monongahela in front of the town to its eastern limits, and returning down the opposite shore went down the Ohio, firing a salute. Most of the citizens were assembled on the bank as she passed.

. . . In one hour and thirty seconds, she was at Middletown, twelve miles below Pittsburg[h], where several gentlemen who had proceeded in her so far came ashore. If therefore the current in the Ohio be rated at four miles an hour in the fresh, she has gone at the rate of eight miles an hour in still water. In coming up the rapid of the Ohio below this town on Monday last, she passed the shore at the rate of four miles in an hour, a speed which would exactly agree with her descent this morning.

The extent of the growing commerce of this town, is, I believe, very inadequately understood to the eastward of the mountains. I am informed, by one of the most respectable merchants of this place, that the amount of the freight only of his consignments to and from New Orleans, and the states below Pennsylvania, will be this year $60,000—and every day adds to the extent and the facilities of the business carried on through Pittsburg[h]. The great difficulty which has rendered the transportation by sea in time of peace from New Orleans to Philadelphia and Baltimore, and thence by land to the immense country west of the mountains, preferable to the voyage up the Mississippi and Ohio, has been in the slowness of the keel boats and barges necessarily employed in the trade. The navigation by steam boats puts an end to that only objection to this course of the trade, a course which in a few years will become the principal, if not the only one. . . .

19.[1] Having had a short interview with the Captain, Mr. A. R. Gale, today, from whom I got some information about the steamboat

[1] Flugel, J. G., Pages from a Journal of a Voyage down the Mississippi in 1817. *Louisiana Historical Quarterly,* July, 1924, pp. 432-436.

Editor's Note.—The author of this journal was engaged for a number of years in trade along the Mississippi river. This journal, which first appeared in the *Louisiana Historical Quarterly,* July, 1924, was reprinted in Lyle Saxon's *Father Mississippi* (pp. 176-205).

I am traveling on, I shall take this evening to note with a little more order what he was kind enough to let me know. He tells me that this steamboat "New Orleans" finished for navigation cost $65,000. She was built at Pittsburgh in 1815 under the direction of one Hardinger (a German) and Captain Gale—for a company at New York (Messrs. Rosewalt, Fulton and Livingston), the same company that built the old "New Orleans" in 1810. She was built after Fulton's plan and construction—her machinery alone cost $20,000. She carries, exclusive of her machinery, 200 tons. Her length in keel is 140 feet and breadth in beam, 28 feet. She carries no sails, runs from 3 to 4 miles against stream in an hour, and down stream, 9 to 10 miles. The ladies' cabin is below deck, it being the most retired place. It is elegantly fitted up. The windows are ornamented with white curtains and the beds, twenty in number, with red bombazette curtains and fringes and mosquito bars, besides sofas, chairs, looking glasses, etc., and an elegant carpet ornaments the floor. This cabin is 30 feet in length. Above deck is an elegant round-house of 42 feet in length and 28 in breadth for the gentlemen. This room for the convenience of the passengers is provided with 26 berths in 13 staterooms, 2 berths in each stateroom, with mattresses of Spanish moss (in which the woods of Louisiana abound). Other necessary bed-clothes are handsomely flowered. Each berth has a window. Sofas or settees and chairs, two large tables, a large gilt framed looking glass, several elegantly finished recommendation cards and the regulations of the boat in gilt frames,—all these adorn the room, and finally an elegant carpet covers the floor. The Captain's room is on the starboard side and is tolerably large. Forward of the round-house adjoining the same, on the larboard side is the bar-room fitted up equal to a coffee house and the present keeper, Louis Roach, is a very accommodating, pleasant man. Above the water-wheel on the larboard side is the clerk's office and lodging. He receives the freight, weighs and measures it, keeps the accounts, etc. On the starboard side ranging with the former is a room for the head engineer and the bar-keeper. Further on the deck forward of the engine is the kitchen and forward of this is a room for the mate and the pilot. This appears to me to be an excellent plan, as these two officers are placed where they are the most available in case of alarm. Forward of this, immediately under the prow below deck, is the forecastler's lodging with 12 berths, seats and a table for the hands in general. I find that the engine effects eighteen revolutions per minute. This, however, cannot be an exact calculation. The Captain is very particular with her boiler (for I observed him this afternoon stuffing up several holes) it being very old, the same that sank in the old "New Orleans" about two years ago. He is daily expecting a new copper boiler from New York. When he gets the same on board he tells me the engine will perform 22 revolutions per minute. Consequently, it will give the boat a much greater velocity through the water. This boiler, now on board, contains eight tons of water. She consumes 6 cords of wood in 24

hours, which is taken in along the coast where the inhabitants have it in readiness at $2.50 per cord (8 feet long, 4 high, and 4 broad). The vessel can be stopped in an instant if there is any danger and with facility she can be brought to shore, or turned in any direction. Near the forecastle's hatch-way is a large bell by which the servants are awakened.

Captain Gale told me that dragging the small boats (which the vessel carries), he had discovered, was injurious to the vessel, as well as impeded her progress. Therefore, he had obtained cranes, by which the small boats were hauled up. This is effected as the boat is proceeding. On the lar- and starboard sides of the bow are two anchors, a provision used only in case of a storm, for commonly they make use of a large cable, which after it has been used is regularly coiled up. As the climate is exceptionally hot and would scarcely be endurable in the summer months on board a steamboat where the heat of the fire and the boilers would be sufficient to prevent persons from traveling or, at least, would render them uncomfortable when traveling, the boat is completely covered with awning at that time, and above the round-house is an elegantly decorated walk with iron railings and nettings (made by Henry, a German sailor). There the gentlemen passengers sit comfortably and have a commanding view over the boat, river, and land, and enjoy the cool breeze. The awnings, the Captain tells me, have no tendency to impede progress. The sight of these swimming volcanoes on water is very agreeable. They generally have colors at their poop and the American eagle and stars give a very handsome effect. A swivel-gun is carried to signalize their arrival and departure. It is generally fastened at the middle of the bow. The one on board this boat is a little 4-pounder. I might say a great deal more, but have mentioned what I thought to be the most interesting. I add a statement of the persons indispensable on board, also their salaries:

1 Captain salary per year				$2,500.	
1 Mate "	month	$50.	year	600.	
1 Pilot "	"	$50.	"	600.	
1 Engineer "	"	$50.	"	600.	
1 Clerk "	per year			500.	
1 Bar-keeper "	month	$30.	"	360.	
1 Steward "	"	$30.	"	360.	
1 Steward assistant salary	"	$30.	"	360.	
1 Cook salary	"	$30.	"	360.	
1 Cook's Mate salary	"	$20.	"	240.	
2 Firemen (each) salary	"	$20.	"	480.	(for both)
8 Sailors " "	"	$20.	"	1920.	(" ")
4 Kitchen servants and waiters who receive from $15 to $20 per month				840.	
				$9,720.	

These are the expenses for one year for persons absolutely necessary on board. Their maintenance is very costly in this part of the country since everything, especially provisions, are high, for one pays from $20 to $55 per month for board in New Orleans. The expenses in case of damage to machinery, which now and then occur, no one can state, but the final and total expenses are very great. The income obtained is proportionately great, for the Captain told me that on one trip from New Orleans to Natchez, the net procceds amounted to no less than $4000. There is within the bounds of knowledge no business in any part of the globe which is more lucrative than this, but it will not be so in a few years hence, for I know the enterprise of the Americans, and the rivers as far as they may be navigable will be crowded with steamboats, and their enterprise will be slackened in the course of time. I add the prices received for passengers and freight:

Passage up stream from New Orleans:

To Baton Rouge	136	miles	$16.00
" Bayou Sara	173	"	19.00
" Bayou Tunica	195	"	20.00
" Fort Adams	260	"	25.00
" Natchez	314	"	30.00

Passage down stream from Natchez:

To Fort Adams	54	miles	$4.00
" Bayou Tunica	119	"	8.00
" Bayou Sara	141	"	9.50
" Baton Rouge	180	"	11.00
" New Orleans	314	"	15.00

Way passengers up stream pay 12½ cents per mile and down stream 6¼ cents. The freight she receives for Bayou Sara is paid at the rate of 30 cents per square foot, and so for a barrel measuring five square feet, $1.50 and for heavy articles such as iron, lead, etc. 75c per cwt.

20.[1] The distance from New Orleans to Louisville is between 1300 and 1400 miles,—and the steam-boat fare, including provisions, but without liquors, which was a few years ago a hundred dollars, is now reduced to thirty. The provisions are very good; fresh eggs, butter, and milk, being got every day on the banks of the river, at the stopping-places for wood. A passenger should merely carry with him a few bottles of claret, which he can get at a very reasonable rate at New Orleans. It is not furnished in the New Orleans' steam-boats. I was

[1] Stuart, James, *Three Years in North America,* Ed. 3, vol. ii, pp. 243-246. Edinburgh, 1833.

Editor's Note.—James Stuart was born in Scotland in 1776. From 1828 to 1830 he traveled in the United States, subsequently writing his *Three Years in North America,* a book which attracted a wide circle of readers both sides of the Atlantic. Stuart wrote with unusual sympathy and understanding about American institutions.

surprised, while revising these memorandums, to find, in a recent publication by a lady who passed some time, nearly at the same period with myself, in the western part of the United States, the following caution:—"Let no one who wishes to receive agreeable impressions of American manners commence their travels in a Mississippi steam-boat,—for myself, it is with all sincerity I declare, that I would infinitely prefer sharing the apartment of a party of well-conditioned pigs, to the being confined in its cabin."

I can no otherwise account for the great discrepancy in point of statement, contained in the representation of this lady, and the preceding details relative to the steam-vessel in which I ascended the Mississippi, than by supposing that our voyages were made in vessels of a very different description. Among 300 or 400 steam-boats on the western rivers of North America, there are of course good, bad, and indifferent; and I cannot doubt that the lady in question had been ill-advised on this occasion, and made her voyage in a disagreeable, ill-found vessel. She ought not, however, as I conceive, on that account alone, and without having taken the trouble to inform herself well on the subject, to caution travellers against all Mississippi steam-boats. She might as well caution a friend against coming up the Thames in a king's yacht, because she had herself been obliged to come up that river in a dirty coal barge. But the statement the lady has given, renders it necessary for me to confirm the information on this subject, which I have ventured to convey to the reader; and I do not know where I can resort to better evidence than that which is afforded by the well-known Mr. Bullock, formerly of London, in his sketch of a journey through the western states of North America in 1827. It appears that his voyage up the Mississippi in the year 1827 was made even in a finer vessel than the Constitution.

> "On the 3d April" (he writes) "we left New Orleans in the beautiful steam-boat 'George Washington,' of 375 tons, built at Cincinnati, and certainly the finest fresh-water vessel I have seen. River boats like these possess the advantage of not having to contend with the ocean storms, as ours have, and are, therefore, built in a different manner, having three decks or stories above water. The accommodations are much larger, and farther removed from the noise, heat, and motion of the machinery. Wood being the only fuel made use of, they are consequently not incommoded by the effects of the dense smoke so annoying in some of our steam-vessels. The accommodations are excellent, and the cabins furnished in the most superb manner. None of the sleeping-rooms have more than two beds. The principal are on the upper story,—and a gallery and veranda extend entirely round the vessel, affording ample space for exercise,—sheltered from sun and rain, and commanding, from its height, a fine view of the surrounding scenery, without being incommoded by the noise of the crew passing

overhead. The meals furnished in these vessels are excellent, and served in a superior style. The ladies have a separate cabin, with female attendants, and laundresses; there are also a circulating library, a smoking and drinking-room for the gentlemen, with numerous offices for servants, &c. &c. They generally stop twice-a-day to take in wood for the engine, when fresh milk and other necessaries are procured; and the passengers may land for a short time. The voyage before the introduction of steam was attended with much risk and labour, and occupied ninety days from New Orleans to Cincinnati for small vessels; the same voyage, of 1600 miles, is now performed, with the greatest ease and safety, in eleven or twelve days, against the stream, and the descent between the above places is done in seven days, each vessel taking several hundred passengers, besides her cargo of merchandise. The rate of travelling is extremely moderate, in proportion to the advantages of the accommodation. We paid about eight pounds each from New Orleans to Louisville, 1500 miles, which includes every expence of living, servants, &c. In ascending this magnificent river, the Mississippi, of which the Ohio may be considered a continuation, is navigable for the largest vessels at high water, from the Gulf of Mexico to Pittsburgh, 2212 miles. The traveller is now enabled, without the least danger or fatigue, to traverse the otherwise almost impassable and trackless wilderness and wilds that bound the western States of America,—and this, without leaving his comfortable apartment, from the windows of which he can enjoy the constantly varying scenery, so new to European travellers."

I may also refer to the recent publication of Mr. Ferrall, whose voyage on the Mississippi was made in the same year with my own, in 1830. He mentions that "the steam-boats on the Mississippi are large, and splendidly appointed. The interior has more the appearance of a well-fitted-up dining room, than the cabin of a boat. Meat, fowls, vegetables, fruits, preserves, &c. are served in abundance, and of the very best quality."

21.[1] Ten days were suffered to elapse after our return to St. Louis, before we pursued our voyage down the Mississippi. In my notice of the preceding year, I gave you a hint of there being a certain degree of danger attendant upon the steam-boat navigation on the rivers of the West, and of the causes thereof; and you will easily comprehend that in making choice of a boat for our descent of upwards of a thousand miles, we acted with as much circumspection as lay in our power.

[1] Latrobe, Charles Joseph, *The Rambler in North America, 1832-1833,* vol. ii, pp. 328-330. London, 1835.

Editor's Note.—Charles Joseph Latrobe (1801-1875) was well known in his day as a traveler and politician. From 1832 to 1834 he lived in the United States and Mexico. From a literary standpoint *The Rambler in North America* is probably the best of his published writings.

The arrival of the Missourian, which had been long expected, gave us the opportunity of taking our berths on board a boat which was distinguished for its good character and good government beyond most of its competitors, and about the close of the first week in December, we left St. Louis. The state of the stream was favourable to its navigation. One wide reach of the Great River was passed after another—towns and villages appeared and disappeared on the shores—we marked the junction of each great tributary in succession—we renewed our acquaintance with the characteristic phenomena of the Great River, its majestic bends and forests of cotton-wood, sand-bars, islands, turbid and boiling waters, their snags and sawyers;—one day followed another, and each evening we might recount a great and uniform advance. The climate became more genial, and we seemed at length to overtake the laggard autumn.

The second day had seen us at the mouth of the Ohio; the morning of the seventh,—a thousand miles from our starting point, under the high bluffs, on which lie the rude remains of Fort St. Rosalie, and abreast of the city of Natchez. Thus far had our voyage been effected in perfect safety; and in bidding our fellow-passengers farewell, as the boat touched the pier for a few minutes to set us on shore in pursuance of our project to make a halt of a few days in the neighbourhood of this city, we had no reason to doubt the safe progress of the Missourian on her passage of three hundred miles to her destination at New Orleans. But we were not yet aware how much cause we had to bless the protecting hand of a merciful God, which had been so frequently and so signally our defence from harm; and you may judge of our surprise and sorrow, when, a few hours after we landed, we learned from a steam-boat which touched at Natchez in ascending, that hardly an hour after we had quitted the Missourian, she had been blown up a few miles below, by the collapse of her boilers, and that several lives were lost, besides many wounded. In brief, on our arrival at New Orleans, some days after, we found that seven of our fellow-passengers were dead, and six badly wounded; and the distress endured by the survivors during the remainder of the voyage, in the midst of the shattered boat, with the dead and dying around them, is not easy to conceive. In addition to this, an accidental fire broke out on board of her a few days after her arrival in port, and she was burnt to the water's edge.

22.[1] No sketch of mine could give you an adequate idea of the steamboat of the West. From the epoch of the launch of that solitary Wanderer, whose first voyage I have elsewhere recorded, up to the close of 1833, it is computed that about five hundred boats of various sizes, from one to five hundred tons burden, had been constructed or run upon the Mississippi and its tributaries. A very small portion of these were built prior to 1820, and the number of new boats launched yearly, for several years back, is stated to have been upwards of fifty.

[1] *Ibid.*, vol. i, pp. 284-288.

There is a great difference between the build and interior arrangement of the Eastern and Western steam-boat, and both are essentially distinct from those unadorned but compact vessels, which, propelled in the same manner, buffet the boisterous and dangerous billows of our narrow seas, straits, and roadsteads.

As to the Eastern steam-boat, the whole of the hold is converted into cabins—the transport of heavy freight being no part of the speculation; they are superior in finish and durability, but not in appearance, to those of the West, and cost much more; being, moreover, almost invariably furnished with low-pressure engines. On the contrary, the whole of the hull of the steam-boat of the West being appropriated for the transport of goods, the cabins are generally constructed upon the main deck. The vessels consequently appear much higher out of the water, and every one must be greatly struck at the first sight of these huge floating palaces, with their double tiers of gay cabins. The boilers, which are cylindrical, and vary from four to double that number, are placed forward on the main-deck, and behind them the machinery is arranged towards the centre of the vessel, enclosed between the huge paddle-boxes and a row of offices on either side. The great cylinder lying in a horizontal position, the piston works on the same plane. Thus in the Western boat the whole arrangement and movement of the engine is horizontal, while in the East it is perpendicular. Sometimes a ladies' cabin is constructed on the same deck, in the stern of the boat; but, more generally, this part is given up to the so-called deck-passengers, and the whole range of superior cabins is built upon an upper deck, extending from the stern over that part of the vessel where the boilers are situated, the portion most in advance being called the boiler-deck. Through the latter, the great chimney pipes conducting the smoke from the fires below ascend, and as the range of cabins do not extend quite so far, the open space and view afforded by it, renders it a favourite lounge. Of the disposition of the cabins little need be said. The ladies' apartment is aft, and opens with sliding doors and curtains into the main, or gentleman's cabin, which is frequently fifty or sixty feet in length. Both are furnished with handsome tiers of upper and lower berths, canopied with ample chintz or moreen curtains, and the former cabin is frequently fitted up with state-rooms. A gallery runs round the whole exterior. Between the forward end of the great cabin and the boiler-deck, ten or fifteen feet of the deck is ordinarily occupied by a Bar, washing-room, captain's and stewards' offices, ranged on either side of an ante-chamber. On some of the larger class of steamers, there is yet a third deck and range of cabins before you come to the roof, or hurricane-deck—upon the forward extremity of which the glazed and painted cabinet, containing the tiller, is placed, affording a lofty and unimpeded view of the channel.

As to the question often started with regard to the safety of the principle upon which the machinery is generally constructed in the West, much might be said in favour of high-pressure engines; and in

spite of my full consciousness of the great danger attending them, when placed, as they frequently are, under the care of incompetent and careless persons, I think that the reasons given are good. These are chiefly founded upon the character of the waters navigated; their turbid state, their extraordinary swiftness, requiring the application of great power: the far greater simplicity of construction of the high-pressure engine,—all the complicated condensing apparatus being dispensed with, which is of great consequence on a navigation where the boat must proceed five or eight hundred miles without the possibility of repair;—its superior lightness, and its being calculated to work off all the steam which is generated; and lastly, the mud is not apt to accumulate so fast in the boiler of the high-pressure engine, being blown out at the safety valve, while under the low-pressure system it must continue in the boiler, and by interposing a stratum between the water and the iron, the latter is sometimes burnt through, and explosion takes place.

Yet, though it may thus be well maintained that the high-pressure engine is better fitted for the Western navigation,—as long as the accidents upon those waters are so frequent, and the loss of human life so great as it has been for some years past, it is no wonder that great prejudice must exist in the minds of many with regard to the system pursued. It is not, however, the principle which is wrong, it is the careless use of it. The history of steam-boat disaster is one of the most terrible and revolting imaginable; and the disregard of human life which is as yet, generally speaking, a feature of the West, is a sure proof that the standard of moral feeling is low.

I have seen so much during four or five thousand miles of steam-navigation in this part of the country, as to believe that there are few voyages of more evident peril in the world than that from St. Louis or Louisville to New Orleans, or vice versa; for, leaving out of the question the casualties incident to the navigation, arising from snags, ice, rocks, fire, or being run down, in consequence of which numbers have perished,—the peril which impends over you from a tremendous power like that of steam, being left under the direction of incompetent or careless men, is a constant and fearful one.

Development of Railway Transportation

23.[1] It was not until after the completion of the Erie canal, in 1825, that the adaptability of railroads to the uses of commerce was established. These works are destined to compete with canals, and even natural water-courses, as *media* of commercial intercourse. Their construction and profitable operation may be regarded as practicable upon all the routes of commerce—and all the Atlantic cities have either completed, or have in progress, lines of railroads having the same general objects and direction with the great New York work, by which

[1] Communication from the Secretary of the Treasury,—Washington, 1853. 32nd Cong., 1st Sess., Senate, Ex. Doc. 112, pp. 276-277.

they propose to secure similar results. These works are regarded as of greater benefit to the interior portions of the country than to the cities which are their *termini* upon our navigable water-courses. Their construction is now the absorbing topic. They will one day become the ordinary highways of transit for property as well as persons. A satisfactory view of the commerce of the country, therefore, necessarily involves a description of them, as its future channels.

24.[1] . . . Before steam power was applied to railway lines in America, iron tracks, on which vehicles were drawn by horse-power, were in use from granite and coal quarries to ports of debarcation. In Quincey, Massachusetts, one of these, terminating at the quarries with a self-acting inclined plane, was begun in 1826 and opened in 1827, and in the latter year similar lines were constructed in Pennsylvania. I apprehend, however, that these were very imperfect constructions. The first locomotive which was ever seen in America was imported from Mr. Stephenson's locomotive engine factory at Newcastle-upon-Tyne, in 1829, and was for some time exhibited, as a curiosity, in New York. The first locomotive engine, which appears to have been used in the United States, was constructed by Messrs. Foster, Rastrick, and Co. of Stourbridge, and was introduced in the latter part of the same year. In 1830, no doubt from these models, a locomotive engine was made in New York, by the Americans themselves. The American Cyclopædia states that "it was a small four-wheeled engine, with an upright boiler and water flues close at the bottom, and the flame circulating round them," and that "it worked successfully for about two years, when it exploded."

Of the more considerable railway enterprizes of the country, the first which appears to have been commenced was a portion of the now Baltimore and Ohio Railroad, the first stone of which was laid (or as we should say, probably with more propriety, the first sod of which was cut,) on the 4th of July, 1828. This road, as I understand, was originally planned for a horse track only; but the introduction of steam locomotives from England encouraged the attempt to run them on the line; and in 1830, a small engine, constructed at Baltimore, was put upon the road, which still exists, and is preserved in the Company's workshops at Baltimore, as a very interesting relic. Although the traffic was great, the engine appears to have been only partially worked, the trains having also been moved by horses.

> "This road was constructed of longitudinal rails pinned down to wooden or cross-stone ties, imbedded in the ground; and upon the rails were fastened flat bars of iron, ½ inch and ⅝ inch thick, and 2½ to 4¼ inches wide, by spikes, their heads countersunk in the iron. This method, which was generally adopted upon the early American railroads, from considerations of economy, and

[1] Peto, Sir S. Morton, *The Resources and Prospects of America,* pp. 265-267. London, 1866. See note p. 199.

with a view of extending the lines to the utmost limit of the capital provided, was soon found to involve great danger and consequent expense. The ends of the rails became loose; and, starting up, were occasionally caught by the wheels, and thrust up through the bottoms of the cars. It was found necessary to run the trains with great caution upon the roads thus constructed, and the passenger traffic was seriously diverted from those lines that acquired a notoriety for snake-heads."—*New American Cyclopædia*, vol. xiii. p. 729.

In 1830 the "Hudson and Mohawk Railroad," from Albany to Schenectady was commenced. In October, 1831, the number of passengers on it was stated at 387 a day, and in 1832 a locomotive "with a load of eight tons, travelled on it at the rate of thirty miles an hour." "In 1831, twelve different railroad companies were incorporated;" and "from this time railroad enterprizes were multiplied with great rapidity."

"In Pennsylvania, it is stated, sixty-seven railroads were in operation in 1832; and in that year were commenced the most important lines of Massachusetts and New Jersey. They have, however, been planned and constructed, in great measure, independently of each other, without regard to any great system; and as the charters were granted by each State for the roads in its own territory, a single State has sometimes, by refusing to authorize the construction of a proposed road, succeeded in preventing the establishment of an important line, the opening of which might injuriously affect the whole or an important part of such State. This want of system is perceived, and its evils are experienced in the various gauges adopted by different roads, rendering necessary frequent transshipment of passengers and freight."—*New American Cyclopædia*, vol. xiii, p. 730.

25.[1] The only rail-roads completed in the south, when I was there, were the Charleston and Augusta one, two short ones in the States of Alabama and Mississippi, and one of five miles from Lake Pontchartrain to New Orleans. There is likely to be soon a magnificent line from Charleston to Cincinnati; and the line from Norfolk, Virginia, to New York, is now almost uninterrupted.

The quarter of an hour employed in reaching New Orleans from Lake Pontchartrain was one of the most delightful seasons in all my travels. My notion of a swamp was corrected for ever. It was the end of April; and the flowering reeds and tropical shrubs made the whole scene one gay garden. It was odd to be passing through a gay garden on a rail-road. Green cypress grew out of the clear water everywhere; and there were acres of blue and white iris; and a thou-

[1] Martineau, Harriet, *Society in America*, vol. ii, pp. 7-13. New York, 1837. See note p. 174.

sand rich, unknown blossoms waving over the pools. A negro here and there emerged from a flowery thicket, pushing himself on a raft, or in a canoe, through the reeds. The sluggish bayou was on one side; and here and there, a group of old French houses on the other. It was like skimming, as one does in dreams, over the meadows of Sicily, or the plains of Ceylon.

That which may be seen on either hand of the Charleston and Augusta rail-road is scarcely less beautiful; but my journeys on it were by far the most fatiguing of any I underwent in the country. The motion and the noise are distracting. Whether this is owing to its being built on piles, in many places; whether the fault is in the ground or the construction, I do not know. Almost all the rail-road travelling in America is very fatiguing and noisy. I was told that this was chiefly owing to the roads being put to use as soon as finished, instead of the work being left to settle for some months. How far this is true, I do not pretend to say. The rail-roads which I saw in progress were laid on wood instead of stone. The patentee discovered that wood settles after frost more evenly than stone. The original cost, in the State of New York, is about two thousand dollars per mile.

One great inconvenience of the American rail-roads is that, from wood being used for fuel, there is an incessant shower of large sparks, destructive to dress and comfort, unless all the windows are shut; which is impossible in warm weather. Some serious accidents from fire have happened in this way; and, during my last trip on the Columbia and Philadelphia rail-road, a lady in the car had a shawl burned to destruction on her shoulders; and I found that my own gown had thirteen holes in it; and in my veil, with which I saved my eyes, more than could be counted.

My first trip on the Charleston rail-road was more amusing than prosperous. The arrangements were scarcely completed, and the apparatus was then in a raw state. Our party left Columbia at seven in the evening of the 9th of March, by stage, hoping to meet the rail-road train at Branchville, sixty miles from Columbia, at eleven the next morning, and to reach Charleston, sixty-two more, to dinner. Towards morning, when the moon had set, the stage bumped against something; and the driver declared that he must wait for the day-spring, before he could proceed another step. When the dawn brightened, we found that we had, as we supposed missed our passage by the train, for the sake of a stump about two inches above the ground. We hastened breakfast at Orangeburg; and when we got to Branchville, found we need have been in no hurry. The train had not arrived; and, some little accident having happened, we waited for it till near two o'clock.

I never saw an economical work of art harmonise so well with the vastness of a natural scene, as here. From the piazza of the house at Branchville, the forest fills the whole scene, with the rail-road stretching through it, in a perfectly straight line, to the vanishing point. The

approaching train cannot be seen so far off as this. When it appears, a black dot, marked by its wreath of smoke, it is impossible to avoid watching it, growing and self-moving, till it stops before the door. I cannot draw; but I could not help trying to make a sketch of this, the largest and longest perspective I ever saw. We were well employed for two hours in basking in the sun, noting the mock-orange trees before the house, the turkeys strutting, the robins (twice as large as the English) hopping and flitting; and the house, apparently just piled up of wood just cut from the forest. Everything was as new as the rail-road. As it turned out, we should have been better employed in dining; but we had no other idea than of reaching Charleston in three or four hours.

For the first thirty-five miles, which we accomplished by half-past four, we called it the most interesting rail-road we had ever been on. The whole sixty-two miles was almost a dead level, the descent being only two feet. Where pools, creeks, and gullies had to be passed, the road was elevated on piles, and thence the look down on an expanse of evergreens was beautiful. This is, probably, the reason why three gentlemen went, a few days afterwards, to walk, of all places, on the rail-road. When they were in the middle of one of these elevated portions, where there is a width of only about three inches on either side the tracks, they heard a shout, and looking back, saw a train coming upon them with such speed as to leave no hope that it could be stopped before it reached them. There was no alternative; all three leaped down, upwards of twenty feet, into the swamp, and escaped with a wetting, and with looking exceedingly foolish in their own eyes.

At half-past four, our boiler sprang a leak, and there was an end of our prosperity. In two hours, we hungry passengers were consoled with the news that it was mended. But the same thing happened, again and again; and always in the middle of a swamp, where we could do nothing but sit still. The gentlemen tried to amuse themselves with frog-hunting: but it was a poor resource. Once we stopped before a comfortable-looking house, where a hot supper was actually on the table; but we were not allowed to stop, even so long as to get out. The gentlemen made a rush into the house to see what they could get. One carried off a chicken entire, for his party; another seized part of a turkey. Our gentlemen were not alert enough. The old lady's table was cleared too quickly for them, and quite to her own consternation. All that we, a party of five, had to support us, was some strips of ham, pieces of dry bread, and three sweet potatoes, all jumbled together in a handkerchief. Our thoughts wandered back to this supper-table, an hour after, when we were again sticking in the middle of a swamp. I had fallen asleep, (for it was now the middle of a second night of travelling,) and was awakened by such a din as I had never heard. I could not recollect where I was; I looked out of the window, and saw, by the light of the moon, white houses on the bank of the swamp, and the waving of shrubs of the forest; but the distracting din was like noth-

ing earthly. It presently struck me that we were being treated with a frog-concert. It was worth hearing, for once, anything so unparalleled as the knocking, ticking, creaking, and rattling, in every variety of key. The swamp was as thick of noises as the forest is of leaves: but, five minutes of the concert are enough; while a hundred years are not enough of the forest. After many times stopping and proceeding, we arrived at Charleston between four and five in the morning; and, it being too early to disturb our friends, crept cold and weary to bed, at the Planters' Hotel. It was well that all this happened in the month of March. Three months later, such detention in the swamps by night might have been the death of three-fourths of the passengers. I have not heard of any mismanagement since the concern has been put fairly in operation.

There are many rail-roads in Virginia, and a line to New York, through Maryland and Delaware. There is in Kentucky a line from Louisville to Lexington. But it is in Pennsylvania, New York, Rhode Island, and Massachusetts, that they abound. All have succeeded so admirably, that there is no doubt of the establishment of this means of communication over nearly the whole of the United States, within a few years, as by-ways to the high-ways which Nature has made to run through this vast country. The evil of a super-abundance of land in proportion to labour will thus be lessened so far, that there will be an economy of time, and a facility of intercourse, which will improve the intelligence of the country population. There will, also, be a facility of finding out where new supplies of labour are most wanted, and of supplying them. By advantageous employment for small capitals being thus offered within bounds, it may also be hoped that many will be prevented from straying into the wilderness. The best friends of the moral as well as economical interests of the Americans, will afford all possible encouragement to wise schemes for the promotion of intercourse, especially between the north and south.

I believe the best-constructed rail-road in the States is the Boston and Lowell, Massachusetts: length, twenty-five miles. Its importance, from the amount of traffic upon it, may be estimated from the fact that some thousands of dollars were spent, the winter after it was opened, in clearing away a fall of snow from it. It was again covered, the next night.

Another line from Boston is to Providence, Rhode Island, forty-three miles long. This opens a very speedy communication with New York; the distance, two hundred and twenty-seven miles, being performed in twenty hours, by rail-road and steam-boat.

There is a good line from Boston to Worcester; forty-five miles in length. Its estimated cost is 883,904 dollars. This road is to be carried on across the entire State, to the Connecticut; from whence a line is now in course of construction to the Hudson, to issue opposite Albany. There are proposals for a tunnel under the Hudson at Albany; and from Albany, there is already canal and rail-road communi-

cation to Lake Erie. There is now an uninterrupted communication from the Atlantic to the far end of Lake Michigan. It only remains to extend a line thence to the Mississippi, and the circle is complete.

26.[1] As might naturally have been expected, the chief theatre of railway enterprise has been the Atlantic States. The Mississippi and its immense tributaries serve the purposes of commerce and intercommunication for the Western States so efficiently, and the population is comparatively so thinly spread over them, that many years will probably pass away before any considerable extent of railway communication will be established in that vast territory. Nevertheless, there are detached examples of railways serving local purposes in different parts of the Mississippi valley. Thus there are in the State of Mississippi five short railways; in Louisiana ten; a few in Florida, Alabama, Illinois, Michigan, Indiana, and Ohio. These are, however, detached and single, and form nothing approaching to a system. They are generally constructed to connect populous towns with the nearest adjacent navigable rivers.

To the traveller in these wilds, the aspect of such artificial lines of transport in the midst of a country a great portion of which is still in the state of native forest is most remarkable, and strongly characteristic of the irrepressible spirit of enterprise of its population. Travelling in the backwoods of Mississippi, through native forests where, till within a few years, human foot never trod, through solitudes the stillness of which was never broken even by the red man, I have been filled with wonder to find myself drawn on a railway by an engine driven by an artisan from Liverpool, and whirled at the rate of twenty miles an hour by the highest refinements of the art of locomotion. It is not easy to describe the impression produced as one sees the frightened deer start from its lair at the snorting of the ponderous machine and the appearance of the snake-like train which follows it, and when one reflects on all that man has accomplished within half a century in this region.

Of the total length of railways which overspread the territory of the Union, more than the half are constructed in the states of Pennsylvania, New York, and those of New England. The principal centres from which these lines of communication diverge are Boston, New York, and Philadelphia.

A considerable extent, though of less importance, diverges from Baltimore; and recently lines of communication of great length have been constructed, from Charleston in South Carolina, and from Savannah in Georgia.

From Boston three trunk lines issue; the chief of which passes through the State of Massachusetts to Albany, on the Hudson. This line of railway is two hundred miles in length, and appears destined to carry a considerable traffic. Its ramifications southward, through the

[1] Lardner, Dionysius, *Railway Economy* . . . , pp. 387-396. London, 1850. See note p. 311.

smaller states of New England, are numerous, chiefly leading to the ports upon Long Island Sound, which communicate by steam-boats with New York. The first branch is carried from Worcester, in Massachusetts, to New London on the South, where it meets a short steam ferry which communicates with Greenport, at the eastern extremity of Long Island, from which another railway, nearly fifty miles long, is carried to Brooklyn, which occupies the shore of that island immediately opposite New York, and communicates with the latter city by a steam ferry.

Thus there is a continued communication from Boston to New York, interrupted only by two ferries.

Another branch of the great Massachusetts line is carried south from Springfield, through Hartford to Newhaven; and a third from Pittsfield to Bridgeport, both the latter places being on the Sound, and communicating with New York by steam-boats.

The second trunk line from Boston proceeds southwards to Providence, and thence to Stonington, from which it communicates by a ferry with the Long Island Railway. This trunk line throws off a branch from Foxburgh to New Bedford, where it communicates by ferries with the group of islands and promontories clustered round Cape Cod.

A third trunk line proceeds from Boston through the State of Maine.

Notwithstanding the speed and perfection of the steam navigation of the Hudson, a railway is now being constructed on the east side of that river to Albany, which will be opened in the course of 1850. The section terminating at New York is already in operation.

From Albany an extensive line of railway communication, 323 miles in length, is carried across the entire State of New York to Buffalo, at the head of Lake Erie, with branches to some important places on the one side and on the other. This line forms the continuation of the western railway, carried from Boston to Albany, and, combined with this latter, completes the continuous railway communication from the harbour of Boston to that of Buffalo on Lake Erie, making an entire length of railway communication, from Boston to Buffalo, of 523 miles.

The branches constructed from this trunk line are not numerous. There is one from Schenectady to Troy, on the Hudson, and another from Schenectady to Saratoga; another from Syracuse to Oswego, on Lake Ontario; and another from Buffalo to the falls of Niagara, and from thence to Lockport.

Not content with this fine line of communication to the Western Lakes, the commercial interests of New York have projected, and in part constructed, a more direct route from New York to Buffalo, independent of the Hudson.

The disadvantage of this river as a sole means of communication is, that, during a certain portion of the winter, all traffic upon it is suspended by frost. In this case, the line of railway communicating already from Bridgeport and Newhaven to Albany has been resorted

to by travellers. However, it may be regarded as certain, that the intermediate traffic of the State of New York along the direct line of railway now in progress from the city to Buffalo, will very speedily be sufficient for the support of an independent line of railway.

The immediate environs of New York are served by several short railways, as is usual indeed in all great capitals where the railway system of transport prevails.

The line connecting that city with Haarlem is analogous in many respects to the Greenwich and Blackwall lines at London, and the Versailles and St. Germain lines at Paris. It is supported by a like description of traffic. The New York line, however, has this peculiarity, that it is conducted through the streets of the capital upon their natural level, without either cutting, tunnel, or embankment. The carriages, on entering the town, are drawn by horses, four horses being allowed to each coach; each coach carrying from sixty to eighty persons, and being constructed like the railway coaches in general in the United States.

The rails along the streets are laid down in a manner similar to that which is customary at places where lines of railway in England cross turnpike roads on a level. The surface of the rail is flush with the pavement, and a cavity is left for the flange to sink in.

Other short railways, from New York to Paterson, Morristown, and Somerville, require no particular note.

The great line of railway already described, from Boston to New York, is continued southwards from that capital to Philadelphia. There are here two rival lines; one of which, commencing from Jersey city on the Hudson, opposite the southern part of New York, is carried to Bordentown, on the left bank of the Delaware, whence the traffic is carried by steamboats a few miles further to Philadelphia. The rival line commences from South Amboy in New Jersey, to which the traffic is brought from New York by steamers plying on the Raritan river, which separates New Jersey from Staten Island. From Amboy, the railway is continued to Camden, on the left bank of the Delaware, opposite Philadelphia.

By far the greater part of the traffic between New York and Philadelphia is carried by the former line.

Philadelphia is the next great centre from which railways diverge. One line is carried westward through the state of Pennsylvania, passing through Reading, and terminating at Pottsville, in the midst of the great Pennsylvanian coal-field. There it connects with a network of small railways, serving the coal and iron mines of this locality. This line of railway is a descending line towards Philadelphia, and serves the purposes of the mining districts better than a level. The loaded trains descend usually with but little effort to the moving power, while the empty waggons are drawn back.

The passenger traffic is chiefly between Reading and Philadelphia.

Another line of railway is carried westward through the state of

Pennsylvania, passing through Lancaster, Harrisburg, the seat of the legislature, Carlisle, and Chambersburg, where it approaches the Baltimore and Ohio Railway. The length of this railway from Philadelphia to Chambersburg is 154 miles. The former, to Pottsville and Mount Carbon, is 108 miles, the section to Reading being 64.

A great line of communication is established, 400 miles in length, between Philadelphia and Pittsburg, on the left bank of the Ohio, composed partly of railway and partly of canal. The section from Philadelphia to Columbia, 82 miles, is railway. The line is then continued by canal for 172 miles, to Holidaysburg. It is then carried by railway 37 miles to Johnstown, from whence it is continued 104 miles further to Pittsburg by canal.

The traffic on this mixed line of transport is conducted so as to avoid the expense and inconvenience of transshipment of goods and passengers at the successive points where the railway and canals unite. The merchandise is loaded, and the passengers accommodated in the boats adapted to the canals, at the depot in Market Street, Philadelphia. These boats, which are of considerable magnitude and length, are divided into segments, by partitions made transversely and at right angles to their length, so that each boat can be, as it were, broken into three or more pieces. These several pieces are placed each on two railway trucks, which support it at its ends, a proper body being provided for the trucks adapted to the form of the bottom and keel of the boat. In this manner the boat is carried in pieces, with its load, along the railways. On arriving at the canal, the pieces are united so as to form a continuous boat, which, being launched, the transport is continued on the water.

On arriving again at the railway, the boat is once more resolved into its segments, which, as before, are transferred to the railway trucks, and tansported to the next canal station by locomotive engines.

Between the depot in Market Street and the locomotive station, which is situate in the suburbs of Philadelphia, the segments of the boats are drawn by horses, on railways conducted through the streets. At the locomotive station the trucks are formed into a continuous train, and delivered over to the locomotive engine.

As the body of the trucks rests upon a pivot, under which it is supported by the wheels, it is capable of revolving, and no difficulty is found in turning the shortest curves; and these enormous vehicles, with their contents of merchandise and passengers, are seen daily issuing from the gates of the depôt in Market Street, and turning without difficulty the corners at the entrance of each successive street.

The southern line of railway communication is continued from Philadelphia to Baltimore, interrupted only by a steam ferry over the Susquehanna.

The management of these steam ferries is deserving of notice. It is generally so arranged, that the time of crossing them corresponds with a meal of the passengers. A platform is constructed, level with

the line of rails, and carried to the water's edge. Upon this platform rails are laid, on which the waggons which bear the passengers' luggage and other matters of light and rapid transport are rolled directly upon the upper deck of the ferry-boat, the passengers meanwhile passing under a covered way to the lower deck.

The whole operation is accomplished in five minutes. While the boat is crossing the spacious river, the passengers are supplied with their breakfast, dinner, lunch, or supper, as the case may be. On arriving at the opposite bank, the upper deck comes into contact with a like platform, bearing a railway upon which the luggage waggons are rolled. The passengers ascend by a covered way, and, resuming their places in the railway carriages, the train proceeds.

Baltimore is the next centre of railway movement. One line issues northwards to Harrisburg in Pennsylvania, where it unites with the Philadelphia and Chambersburg line. A great line of western railway is projected to be carried from Baltimore to the left bank of the Ohio, to some point near Wheeling. This line, however, is as yet finished only so far as Cumberland, 153 miles. This place is at the foot of the Alleghany range, which is crossed by the great national, an excellent Macadamized road-way, which continues the communication 126 miles further, to Wheeling, on the Ohio. The ascent is gradual, and constructed on good engineering principles.

The railway, when completed, will cross this ascent by a series of inclined planes, all of which but one will be worked by locomotive engines. This will probably be worked by means of a stationary engine. Nothing, however is done as yet towards the realisation of this part of the project.

Baltimore is connected with Washington, the seat of the federal legislature, by an excellent line of railway, nearly forty miles in length. From this point the great southern line of communication is continued by steam-boats on the Potomac to the left bank of that river near Fredericksburg, in Virginia, a distance of about fifty miles. Here the line of railway communication is resumed and continued through the State of Virginia, passing through Richmond and Petersburg, being continued southwards to Halifax, on the frontiers of North Carolina.

Another line of communication southwards is formed by steam-boats on the Chesapeake, which ply between Baltimore and Norfolk, from which place a line of railway is carried to the frontiers of North Carolina, near Halifax, running into the great artery just mentioned, at Weldon. From Halifax the great southern railway is continued through North Carolina to Wilmington, a seaport near the southern limits of that state.

Thus is completed so far a continuous line of railway communication running north and south through the Atlantic States, commencing at Portland in the State of Maine, passing successively through Boston, Providence, New York, Philadelphia, Baltimore, Washington, and Richmond, and terminating at Wilmington, the total length of which

is nearly 1000 miles. From Wilmington the communication with Charleston is maintained by steam-boats, which ply along the coast.

Charleston in South Carolina, and Savannah in Georgia, are the points from which other great lines of railway communication issue westward. That which proceeds from Charleston is carried across South Carolina to Augusta, on the confines of Georgia, throwing off a branch northwards to Columbia, the capital of the state.

The length of the main line to Augusta is 134 miles.

From Augusta the line of railway is continued westward through Georgia, passing through Madison and Decatur to the left bank of the Tennessee river, throwing off a branch to Athens, the seat of the university.

From Savannah the line of railway passes through Georgia and Macon, and unites with the former line at Decatur.

These lines of railway communication are continued westward to the left bank of the Alabama river, on which the transport is continued by steam-boats to Mobile, and thence to New Orleans, and by another line to the Tennessee, by which the navigation is continued through the Mississippi valley to the left bank of its great tributary, the Ohio.

27.[1] The progress of railways in America has been rapid. The following table will show the number of miles completed in periods of two years, from 1838 to 1860:—

RAILROAD MILEAGE IN THE UNITED STATES.

Year.	Miles.	Year.	Miles.
1838	1,843	1850	8,827
1840	2,167	1852	12,841
1842	3,863	1854	19,195
1844	4,285	1856	23,724
1846	4,828	1858	27,158
1848	6,491	1860	31,185

The railways in America are almost universally *single track* lines, and this fact has to be regarded in estimating the amount of railroad accommodation provided for the United States in comparison with that of other countries. It is a common thing to hear the American railroads spoken of as exceeding in length those of all the rest of the world put together. But those who speak in this way do not appear conscious of the fact that the greater proportion of the English and French lines are double lines; and that when we speak, for example, in England, of 10,500 miles of railway open in 1860, that estimate of

[1] Peto, Sir S. Morton, *The Resources and Prospects of America*, pp. 275-278. London, 1866. See note p. 199.

mileage does not include duplicate, and even in some cases triplicate, lines of communication.

The number of miles of railroad open in each State in 1860 is shown in the following table:—

NUMBER OF MILES OPEN IN EACH STATE.

State.	Miles Open.	State.	Miles Open.
Ohio	3057	New Hampshire	658
Pennsylvania	2943	Alabama	643
Illinois	2925	Connecticut	608
New York	2809	Vermont	575
Indiana	2058	Iowa	549
Virginia	1805	Kentucky	531
Georgia	1401	Maine	476
Massachusetts	1314	Maryland	406
Tennessee	1283	Louisiana	328
South Carolina	978	Florida	326
Wisconsin	937	Texas	294
North Carolina	887	Delaware	137
Missouri	813	Rhode Island	104
Michigan	807	California	70
Mississippi	798	Arkansas	38
New Jersey	627		

This table will illustrate the extent to which railway enterprize has been developed in the North-Western States, especially in Ohio, Illinois and Indiana. The Illinois Central Railroad, which passes through 706 miles of that State, was endowed with *alternate* sections of land for a width of three miles on each side of its track, the State reserving each other section. It thus acquired 2,595,000 acres in an excellent farming region; and from the sale of these lands the expenses of construction, &c., have been or will be met. The effect of this policy in the development of the State has already been referred to.

Most of the American lines were originally made in short lengths, as lines of communication between different towns in the same State; and without regard to any general system of communication for the nation. It follows, that even in the cases of lines which are now united and brought under a single management, much diversity of construction and a great want of unity of system is observable. One of the great deficiencies of the American railroad system is, in fact, the absence of a general policy of management. Scarcely any attempts are made to render the working of lines convenient to travellers by working the trains of one company in conjunction with another; and

this gives rise to complaints on the part of the public, which may, some day or other, be made to afford a ground of excuse for governmental interference. Nothing can be more desirable for the success of American railroad enterprizes than well considered general arrangements for the working and interchange of traffic.

Remarkable as has been the rapidity with which the American railroads have been constructed, and great as is the total mileage already made, the railroad accommodation of the United States is not to be regarded as by any means meeting the requirements of the country. The rapid growth of the system has only been co-equal with the rapid growth of the population: the extent of mileage is attributable to the vast extent of territory settled, and the great distances between the seats of population.

28.[1] Railways in America have been generally constructed, as in England, by joint-stock companies, with which, however, the state interferes much more largely than in England. In some cases, a major limit to the dividend is imposed by the law which constitutes the company. In some, the dividends are allowed to augment; but when they exceed a certain limit, the surplus is divided with the state. In some, the privilege granted to the companies is limited to a certain period. In some, a right of revising and restricting the tariff periodically is reserved to the state.

But little merchandise is transported on the American railways, the cost of transport being greater than goods in general are capable of paying; nevertheless, a tariff, regulated by weight alone, without distinction of classes, is fixed by law for merchandise.

In the States of New England the legislature does not interfere with the rate of fare or the tariff of charges imposed by the companies; but there is a provision in all the railway acts, that after ten years from the date of the opening of each railway, dividends are not to exceed ten per cent., and that if the profits should be such as to produce a greater dividend, the tariff must be reduced so as to bring the dividend to that limit. In some few cases of the New England railways, as, for instance, in the line from Boston to Providence, this period is only four years.

In the State of Pennsylvania, the charters granted to the several railway companies differ very much in their conditions. In some, an average limit is named, which the fares and tonnage are not to exceed; in others, an average maximum tariff is fixed. These maxima are different on different lines.

Besides these major limits imposed on the fares, there is also, in certain cases, a major limit imposed on the dividends, which in some cases must not exceed twelve, and in others fifteen per cent. In some cases, the dividends above a certain amount are subject to a tax, payable to the state.

[1] Lardner, Dionysius, *Railway Economy* . . . , pp. 411-414. London, 1850. See note p. 311.

With the exception of this tax upon dividends which exceed a certain amount, and which only prevails in the State of Pennsylvania, no special tax is imposed on the American railways and canals. Sometimes, however, they are subject to the same taxes on their lands and buildings to which other proprietors are liable; in some cases they are exempted from them.

In several of the largest States, such as New York, Pennsylvania, and Virginia, the acts constituting the railway companies contain a clause reserving an absolute power of modifying them from time to time as the legislature may see fit. In no case, however, has this clause been yet brought into practical operation, and it is generally regarded as the mere theoretical expression of the unlimited sovereignty of the State.

In some of the States the grants to the railway companies are for an unlimited time. In the northern States, however, their period varies from 50 to 100 years.

In some of the latter grants an exclusive privilege is given to the companies of making railways through certain districts.

Nothing can be more simple, expeditious, and cheap than the means of obtaining an act for the establishment of a railway company in America. A public meeting is held, at which the project is discussed and adopted. A deputation is appointed to apply to the legislature, which grants the act without expense, delay, or official difficulty. The principle of competition is not brought into play, as in France; nor is there any investigation as to the expediency of the project, with reference to future profit or loss, as in England. No other guarantee or security is required from the company than the payment by the shareholders of a certain amount constituting the first call. In some states, the nonpayment of a call is followed by the confiscation of the previous payments; in others, a fine is imposed on the shareholder; in others the share is sold, and if the produce be less than the price at which it was delivered, the surplus can be recovered from the shareholder by process of law. In all cases, the acts creating the companies fix a time within which the works must be completed under pain of forfeiture. The traffic in shares before the definitive constitution of the company is prohibited.

Although the state itself has rarely undertaken the execution of railways, it holds out in most cases inducements in different forms to the enterprise of companies. In some cases, the state takes a great number of shares, which is generally accompanied by a loan made to the company, consisting in state stock delivered at par, which the company negociate at its own risk. This loan is often converted into a subvention.

In many cases the companies obtain the land gratuitously, or for a nominal price.

When the price becomes a matter of consideration, the land is valued by a jury, as in England.

Several States have made a condition that foreign capital shall be excluded under penalty of forfeiture or fine against the companies.

29.[1] The decade which terminated in 1860 was particularly distinguished by the progress of railroads in the United States. . . .

While the increase in mileage was nearly 300 per cent., and the amount invested still greater, the consequences that have resulted from these works have been augmented in vastly greater ratio. Up to the commencement of the decade our railroads sustained only an unimportant relation to the internal commerce of the country. Nearly all the lines then in operation were local or isolated works, and neither in extent nor design had begun to be formed into that vast and connected system which, like a web, now covers every portion of our wide domain, enabling each work to contribute to the traffic and value of all, and supplying means of locomotion and a market, almost at his own door, for nearly every citizen of the United States.

Previous to the commencement of the last decade only one line of railroad had been completed between tide-water and the great interior basins of the country, the products of which now perform so important a part in our internal and foreign commerce. Even this line, formed by the several links that now compose the New York Central road, was restricted in the carriage of freight except on the payment of canal tolls, in addition to other charges for transportation, which restriction amounted to a virtual prohibition. The commerce resulting from our railroads consequently has been, with comparatively slight exceptions, a creation of the last decade.

The line next opened, and connecting the western system of lakes and rivers with tide-water, was that extending from Boston to Ogdensburg, composed of distinct links, the last of which was completed during 1850. The third was the New York and Erie, which was opened on the 22d of April, 1851. The fourth, in geographical order, was the Pennsylvania, which was completed in 1852, although its mountain division was not opened till 1854. Previous to this time its summit was overcome by a series of inclined planes, with stationary engines, constructed by the State. The fifth great line, the Baltimore and Ohio, was opened, in 1853, still further south. The Tennessee river, a tributary of the Mississippi, was reached, in 1850, by the Western and Atlantic railroad of Georgia, and the Mississippi itself, by the Memphis and Charleston railroad, in 1859. In the extreme north the Atlantic and St. Lawrence, now known as the Grand Trunk, was completed early in 1853. In 1858, the Virginia system was extended to a connexion with the Memphis and Charleston and with the Nashville and Chattanooga railroads.

The eight great works named, connecting the interior with the seaboard, are the trunks or base lines upon which is erected the vast system that now overspreads the whole country. They serve as outlets to the interior for its products, which would have little or no com-

[1] *Preliminary Report on The Eighth Census,* 1860, pp. 103-105. Washington, 1862.

mercial value without improved highways, the cost of transportation over which does not equal one-tenth that over ordinary roads. The works named, assisted by the Erie canal, now afford ample means for the expeditious and cheap transportation of produce seeking eastern markets, and could, without being overtaxed, transport the entire surplus products of the interior.

Previous to 1850 by far the greater portion of railroads constructed were in the States bordering the Atlantic, and, as before remarked, were for the most part isolated lines, whose limited traffics were altogether local. Up to the date named, the internal commerce of the country was conducted almost entirely through *water* lines, natural and artificial, and over ordinary highways. The period of the settlement of California marks really the commencement of the new era in the physical progress of the United States. The vast quantities of gold it produced imparted new life and activity to every portion of the Union, particularly the western States, the people of which, at the commencement of 1850, were thoroughly aroused as to the value and importance of railroads. Each presented great facilities for the construction of such works, which promised to be almost equally productive. Enterprises were undertaken and speedily executed which have literally converted them into a net-work of lines, and secured their advantages to almost every farmer and producer.

. . . The only important line opened in the west, previous to 1850, was the one from Sandusky to Cincinnati, formed by the Mad River and Little Miami roads. But these pioneer works were rude, unsubstantial structures compared with the finished works of the present day, and were employed almost wholly in the transportation of passengers. Within the decade, in place of this one line, railroads have been constructed radiating from lakes Erie and Michigan, striking the Mississippi at *ten* and the Ohio at *eight* different points, and serve as trunk lines between the two great hydrographic systems of the west. These trunk lines are cut every few miles by cross lines, which, in the States east of the Mississippi, are sufficiently numerous to meet every public and private want, and to afford every needful encouragement to the development of the resources of this country.

The southern States have been behind the northern in their public enterprises, though, at the date of the census, they were prosecuting them with great energy and vigor. The progress inland of the great trunk lines of the south has been already noted. The opening of the Mobile & Ohio, and of the Mississippi Central, which will soon take place, will give completeness to the system of the southwestern States, and leave little to be done to make it all that is wanted for that section of the country.

West of the Mississippi less has been done, for the reason that the settlements there are of a more recent date, and the people less able to provide the means for their construction than those of the older States. But even upon our western frontier extensive systems have

been undertaken and very considerable progress made in their execution.

A more interesting subject than the progress of our public works would be their results, as shown in the increased commerce and wealth of the country. But such inquiries do not come within the scope of this report. It is well ascertained, however, that our railroads transport in the aggregate at least 850 tons of merchandise per annum to the mile of road in operation. Such a rate would give 26,000,000 tons as the total annual tonnage of railroads for the whole country. If we estimate the value of this tonnage at $150 per ton, the aggregate value of the whole would be $3,900,000,000. Vast as this commerce is, more than three-quarters of it has been created since 1850.

Land Grants and Other Aid to the Railways

30.[1] March 2, 1833, Congress authorized the State of Illinois to divert the canal grant of March 2, 1827, and to construct a railroad with the proceeds of said lands. This was the first Congressional enactment providing for a land grant in aid of a railroad, but was not utilized by the State.

The first right of way (30 feet on each side of its line) through the public lands for a railroad, with use of timber within 300 feet on either side and 10 acres at terminus, was granted to a Florida company March 3, 1835.

In the right of way to the New Orleans and Nashville Railroad Company granted July 2, 1836, first appears the requirement of filing a description of the route and surveys with the General Land Office. Easements were granted for necessary depots, water stations, and workshops, in blocks of not more than five acres on the line of the road, and adjacent, and at least fifteen miles apart. Material for construction—earth, stone, or timber—might be taken from the public lands. A limitation as to beginning the road within two years and completing the same in eight years, was provided, with a forfeiture of the grant unless construction was carried out as above. Abandonment of the road caused the grant to "cease and determine." The East Florida grant required maps to be filed with the Commissioner of the General Land Office showing the location of the lands, as also did grants for other railroads.

The act of September 20, 1850, was the first railroad act of real importance, and initiated the system of grants of land for railroads by Congress which prevailed until after July 1, 1862. This grant gave the State of Illinois alternate sections of land (even-numbered) for six sections in width on either side of the road and branches, being a grant of specific sections.

The second section initiated the "indemnity" practice, or the granting of lands to the company in lieu of lands within the original grant

[1] Donaldson, Thomas C., *The Public Domain.* 46th Cong. 3rd Sess., House of Representatives, Ex. Doc. 47, part 4, pp. 261-262. See note p. 186.

occupied by legal settlers at the time of the definite location of the route, to be taken within fifteen miles of the road, and designated the method of disposition. The third section provided that lands of the United States within the grant limits should not be sold at less than double minimum price ($2.50) being an increase of the price of lands from $1.25 to $2.50 per acre, or from single to double minimum. It provided for a forfeiture of the grant, with payment by the State to the United States for lands sold, in case of failure to construct within a certain fixed time. Unsold lands were to revert to the public domain, and purchasers from the State to have good title. This was providing for default and reversion thereafter.

The road was to be a public highway, to be used by the Government free of toll or other charges, and the mails were to be carried at prices to be fixed by Congress.

Terms of the Act Extended to Alabama and Mississippi.—This act extended like terms and conditions to the States of Alabama and Mississippi in aid of the Mobile and Ohio road which was to connect with the Illinois Central and branches—all of which roads are now established.

Legislative History of the Illinois Act of 1850.—The following legislative history of the passage of this law is from a statement made by the Hon. Stephen A. Douglas, noted and written out by Col. J. Madison Cutts, U. S. A.:

The Illinois bill was the pioneer (railroad) bill, and went through without a dollar, pure, uncorrupt.

As early as 1835 the Illinois legislature granted to D. B. Holbrooke a charter for the Illinois Central Railroad, and also for the construction of a city at the mouth of the Ohio River, called Cairo, and various other charters for enterprises connected with his proposed improvements at Cairo. Before Mr. H. [olbrooke] had taken any steps to construct the road, the Illinois legislature, at the session of 1836-'37 commenced a system of internal improvements at the expense and under the control of the State, which system embraced the construction of the Illinois Central Railroad among other works, and they repealed the charter granted to Mr. H. [olbrooke] for that road.

After spending a large amount of money on these various works, including over a million of dollars upon the Illinois Central road, the credit of the State failed during the pecuniary revulsions of 1837, 1838, 1839, and 1840, and the works were all abandoned. Mr. H. [olbrooke] again applied to the State for a charter to construct a road, which was granted to him and his associates, together with all the work that had been already done, on condition that he would proceed and construct the road.

31.[1] The liberal appropriation of lands in aid of the construction of the Illinois Central Railroad, has made certain the completion of

[1] *The Western Journal and Civilian,* vol. iii, pp. 174-178. St. Louis, 1851.

a leading railroad through the centre of Illinois, from her extreme Southern boundary at Cairo, to Galena on her northern boundary, with an important branch to Chicago, connecting the entire state by railroad with the commerce of Lake Michigan, and of the Upper and Lower Mississippi respectively; and this great leading road will be the parent of numerous branches, comprehending as well all the available riches of the country away from its immediate vicinity.

The effect of this gift will enhance immensely the advantages of the state of Illinois to emigrants as a place of settlement, will increase proportionally her resources, and will extend proportionally her influence. The advantageous position which Illinois is destined to occupy so much sooner in consequence of this assistance, and which is already so distinctly felt in the West, may convert those who have doubted the propriety of such an application of the public lands. Until Missouri is placed in a similar position, her citizens may complain justly to the effect of such one-sided legislation on the progress of individual states, and the city of St. Louis may complain, and will have reason until then to complain, of the construction through Government assistance, of roads, whose completion will interfere most materially with her present commerce with the Upper Mississippi, will change to a great extent its direction and character, and will force her to apply immediately her resources in an undue proportion, to the construction of roads Westerly, whose traffic shall compensate for the trade which the Central Illinois railroad, and its connections with the Mississippi must withdraw from her.

The natural changes of trade consequent on the opening of new channels of communication by private or by state efforts, must be met, when they act disadvantageously, by compensating efforts to connect with, and attract previously unavailable sources of business. When the Government accelerates those changes by its aid in one state, and leaves them to private effort in another, it interferes with the relative wealth and position of the two states so situated. The one is enabled now, and by extraneous assistance, to connect her vast resources easily and speedily with the markets of the world, and with the more important produce markets of the West and South: the other is left straining to procure means, and expending an excess of money, (which would under the same measure of assistance, have been applied to the development of her native wealth,) in the prosecution of communications, which will place her in an equally commanding station, and maintain intact her relative political and social position.

The discouraging effect of such favouritism on the neglected state is about equal to its happy effect on the other. We do not argue against the land assistance to Illinois, but should always have warmly advocated it. We but contend for similar aid to the state of Missouri, and the other Western states, which shall place them on a footing in that respect with their fortunate neighbour, and enable them also to render practically valuable the enormous resources which

now lie useless upon the surface of the prairies, or in the veins and strata of the geological formations of this region.

Setting aside, for the present, considerations that may be deemed local merely, in regard to the application of the public lands to purposes of internal improvement, we propose to take a brief view of the question in its most general aspect.

The right of Congress to apply any portion of the public lands, in aid of leading canals or railroads, is questioned by some, and the principle involved in any such right has neither been definitely admitted nor denied, but to this moment remains so far undetermined as to make every new grant an act of special favor of Congress, obtained through a concurrence of accidental and favorable circumstances, and under a kind of protest from a certain fraction of the national legislature.

Now it is admitted by all, that it is the interest of the Government to have the lands occupied as speedily as possible; and yet it is denied in the same breath, that the steps necessary to be taken to secure the occupation of these lands within a reasonable time, are competent to be taken by the government. It is admitted and contended on all hands, that the land should, if possible, be disposed of only to actual occupiers, men who would settle upon it, and improve it; and yet it is denied by some, that the only steps which would render that occupation (in the case of all lands away from the rivers,) desirable to that class of men, viz., ease of access to a market, should be facilitated and endorsed by Congress.

What are those steps but the opening up of the interior lands by means of great leading lines of communication, enabling those resident on them, to send their produce with profit to the local markets. As the lands are situated now, they fall by the very inaction of Congress into the hands of the speculators. The farmer or the miner, who seeks a field for constitutional activity of disposition, or for the application of a healthy industry, has no inducement to settle on these back lands, however rich they may be. He cannot find a market on the spot, and there are no mechanical facilities of transportation within his reach to neutralise the distance of his position from the market cities of his section of country. This is the case with all the lands of the Western states away from the rivers, except on the few belts where canals or railroads are being established. If by accident, such a man settles in such a position, he lives along in the hope of something being done for his section of country, until his early activity of disposition is unsettled by the absence of compensation for his labors. He fills up his leisure time by hunting, loses his regular habits, and discouraged and disappointed, ends by doing the little that he had to do to sustain his family, in a slovenly and imperfect manner. The result is, that these back lands are entered very slowly; that the speculator with some capital to back him, acquires and holds large parts of them, in the faith that the gradual progress of population. which time will assure,

or some lucky chance, will ultimately enable him to dispose of them to advantage. A large extent of public land is held in this way, which but for the absence of competition consequent on its inaccessible position, would never have fallen into such hands. The men who would have made those lands valuable are not there; the railroads which would have made them accessible are not building for want of that encouragement which in every sense it would be the interest of the government to give; and the men with idle capital called speculators, with a foresight for which they should receive credit, are enabled, by the timidity, the indifference or the inaction of Congress, to obtain for a trifle, large portions of the very rich lands, which while we are framing laws, ostensibly and on paper to secure them to the hard working man, we are taking especial pains to render by their position not worth his purchase.

. . . . . .

The principle acted upon in the railroad land bills for Alabama, Mississippi and Illinois has been to donate every alternate section for six miles in width on either side, and to double the price of the land on the remaining alternate sections. The cost of the land donated is thus provided for and recovered,[1] for the remaining land will easily command the increased price. The condition admits of the government conferring a vast benefit upon a state without pecuniary loss, and with certain benefit in other respects to itself.

And does the Government gain any thing by this timely benefit so easily conferred?

Take the case of the Illinois Central railroad, the Mobile and Ohio railroad, the Missouri railroads, the proposed Arkansas railroad, or the proposed railroad through Iowa. In the case of all these railroads, public lands, which are at present entirely inaccessible for any practical purpose, are made available and profitable, without charge or risk to the Government. A large extent of territory will, as these railroads are made, be industriously settled. Its produce will swell the commerce of the country East, West and South, and its trade and wants add to the revenues of the Government. An active population will settle along these railroads, as a matter of course, for they are not less prolific than rivers of ample water power, in the creation and support of industrial pursuits.—The wealth and power of the country are increased, and what was formerly an idle range for the hunter, becomes noisy with the activities of civilized life. Surely, the difference

[1] A recent examination of the land bills shews us, that the compensation to the Government by doubling the price of the remaining sections, is only strictly true, where there have been no entries made upon the alternate sections reserved by the United States within the six mile belt.—Where there are occupied lands or preemption rights within that belt, and every alternate section does not remain with the Government on which to double the price, the compensation to the land office would be proportionately reduced; but this consideration is conceived to be of very secondary importance under any circumstances.

is worth some sacrifice and might excuse some effort, and yet such advantages, following the progress of railroad communications through such territories, as surely as the plant grows from the seed, are begrudged or delayed in subservience to party or sectional jealousies, as if the consequences involved were of the most secondary importance.

The First Transcontinental Railway

32.[1] Prior to July 1, 1862, there had been constant agitation of the question of a railroad to the Pacific, beginning seriously from about the time of the settlement of the northern boundary by the Webster-Ashburton treaty of 1842, and the organization of Washington Territory. A public meeting was held at Dubuque, Iowa, about the year 1838, on this subject. After 1855 Eli Whitney petitioned Congress for a grant of one hundred millions of acres of land to enable him to construct a railroad to the Pacific Ocean. This application was vigorously pushed.

In 1845 Senator Douglas proposed a grant of alternate sections of land to the States of Ohio, Indiana, Illinois, and Iowa, to aid in the construction of a railroad from Lake Erie, via Chicago and Rock Island, to the Missouri River, and prepared a bill (upon which he issued an address to his constituency) to organize the Territory of Nebraska, extending from the Missouri River westward, &c., as well as a bill to organize the Territory of Oregon, from the summit of the Rocky Mountains to the Pacific Ocean, and to reserve to each of said Territories the alternate sections of land for forty miles on each side of a line of railroad, from a point on the Missouri River where the Lake Erie road should cross the same, and thence to the navigable waters of the Pacific, in the Territory of Oregon, or on the Bay of San Francisco, in the event that California should be annexed in time.

After the admission of the State of California into the Union, in 1850, and up to 1862, a host of measures were proposed in Congress for a railroad to the Pacific Ocean. Frequent reports were made by a select committee in each house (see committee reports of Congress, 1850 to 1862, and Journals of both houses of Congress, and the *Globe*). The main provisions of the bills reported favorably were, that Congress should make an appropriation of lands, varying in the different bills from fifteen to forty sections per mile, from the Missouri River to the Pacific Ocean, and then providing that the President of the United States should receive sealed proposals from contractors for the construction of the road, contractors to construct at their own expense, and own it when constructed, the United States to make conveyance of the lands granted as fast as the road should be completed through the same. The Government was to make a contract in advance for the transportation of the mails; Army and Navy supplies, and all other freights for the Government, to be determined by bids.

[1] Donaldson, Thomas C., *The Public Domain.* 46th Cong., 3rd Sess. House of Representatives, Ex. Doc. 47, part 4, pp. 265-267. See note p. 186.

These bids were to be received on the following points: First, within how short a time will the contractors complete the road? Second, at what rate per annum will the contractors carry the mails and Government freights for a period of twenty years from the completion of the road? When all the bids were received, the President, in the presence of the Cabinet, and other persons, was to open the bids and assign the contracts to those contractors whose bids should be most favorable to the interests of the United States, having in view the shortness of time for completion and the cheapness of transportation upon it.

A bill reported to the Senate in 1858 proposed that the United States should loan to the contractors its 5 per cent. bonds to the amount of twelve thousand five hundred dollars per mile for each mile of the road, which was to be repaid to the United States in transportation of the mails and other Government service to be rendered by the road.

In his annual report for 1849, Secretary of the Interior Ewing called attention to the "Recent Pacific Railroad meetings at Memphis and Saint Louis."

Government Surveys for a Route.—The Government of the United States, under the War Department, organized and executed a series of transcontinental surveys and explorations from the Mississippi River westward to the Pacific Ocean, for ascertaining the most practicable and economical railroad route to the Pacific. The report reviewed the resources and prospects of the following routes: The extreme northern route (Steven's), between the 47th and 49th parallels, north latitude; the route of the 41st parallel (Mormon route); the route of the 38th parallel (Benton's great central or Buffalo Trail route); the route of the 35th parallel (Rusk's route), and the route of the 32d parallel (El Paso and the Gila to the Pacific) through the Gadsden purchase.

Political Action and Petitions.—Legislatures petitioned, mass meetings were held, and conventions of political parties urged the passage by Congress of a law to build a railroad to the Pacific Ocean.

In 1856 the Democratic party, in national convention at Cincinnati, in June, passed a resolution (in their platform) asserting that it was the duty of the Federal Government to exercise all its constitutional power to aid in building the railroad to the Pacific. The Republican party, at its national convention at Philadelphia in June, 1856, passed a resolution (in their platform) that the Federal Government ought to render immediate and efficient aid in the construction of such a road, and also for the construction of an overland wagon-road as preliminary. The Douglas wing of the Democratic party at Charleston and Baltimore, in June, 1860, in their platform, after declaring the necessity, said: "The Democratic party pledge such constitutional Government aid as will insure the construction of a railroad to the Pacific Coast."

The Breckenridge wing, at Charleston-Baltimore, in June, 1860,

after pledging their party to the use of every means to secure the building of such a road, urged the "passage of some bill to the extent of the constitutional authority of Congress."

The Republican party, at its national convention at Chicago, in June, 1860, again asserted the platform of 1856, with the additional clause that "preliminary thereto (constructing the Pacific Railroad) a daily overland mail should be promptly established."

The three Presidential candidates in 1856, Messrs. Buchanan, Frémont, and Fillmore, wrote letters favoring the road. . . .

In his message of December 6, 1858, President Buchanan speaks of the importance of the road, and says: "It would be inexpedient for this Government to exercise the power of constructing the Pacific Railroad by its own immediate agents. The construction of this road ought, therefore, to be committed to companies incorporated by the States," and "Congress might then assist them in the work by grants of land or money, or both, with conditions and restrictions as to transportation of troops and munitions of war, free of charge, and the carrying of the mails at a fair price." The old system of grants of lands to States, leaving the State to incorporate companies to build railroads, was the basis of the above arguments.

President Lincoln's messages, 1861 to 1864, contained recommendations and suggestions upon this subject.

33.[1] We now come to speak of a step in railroad construction which gave to our system of internal transportation a world-wide importance: this was the building of a railway across the plains and through the mountain-ranges of the Far West to connect the seaboard of the East with that of the distant Pacific. Since railways were invented, the world has been running to short cuts and rapid transit. The slow and leisurely methods of our ancestors are being gradually laid upon the shelf. The world moves faster than of old, and nothing satisfies now except the most rapid movement of commerce and travel which it is possible to bring about. When the route to India by way of the Cape of Good Hope was discovered, the merchants of Portugal and the Netherlands were content if their big, bluff-bowed ships came back from their voyages of trade in two years from the time they left port at home. For three hundred and fifty years, trade was transacted chiefly by that circuitous and tedious route. When California was settled and the discovery of priceless deposits of gold was made, merchants were long content to trade by way of the long route around Cape Horn, their ships returning only at the expiration of a year. The age became impatient at the pace at which trade was moving. The Panama Railroad was built, shortening the trip to California many months; and then the Suez Canal was opened, shortening the voyage from China to eighty days. But there was yet much to do in abbreviating the route to Asia. From New-York City to Panama,

[1] Bolles, Albert S., *Industrial History of the United States*, pp. 659-660. Norwich, Conn., 1889. First published in 1878. See note p. 23.

and thence to Canton, is 11,850 miles: from England to Canton by the same route is 14,630 miles, or half the circumference of the earth. But were there a railroad across the American continent in as direct a line from New York as could conveniently be built, the trip from that metropolis to Canton would be only 10,845 miles long, and from England to New York, and thence to Canton, 13,845 miles; the distance from England to Canton by way of the Suez Canal being 12,000 miles.

There had been, for several years, talk about a railway to the Pacific. The war accelerated the national impulse in favor of such a work by showing the need of an inland route to California, and facilities for the rapid transportation of troops to those far-away western portions of our domain. In July, 1862, two companies were incorporated by Congress to build the road. The Union Pacific was to begin at Omaha, and go westward: the Central Pacific, starting at San Francisco, was to build out to meet it. The Act of 1862, and a subsequent one passed in 1864, granted to the companies a right of way two hundred feet wide through the public domain, and twenty sections of land per mile, and, in addition to this, a loan of government credit to the amount of $16,000 per mile on the prairies, $32,000 per mile between the Rocky Mountains and Sierra Nevadas, and $48,000 per mile for a distance of a hundred and fifty miles across each of those two ranges. Work began in 1863. The Central Pacific consolidated with the Western Pacific Railroad out to San José, the San Francisco, Oakland, and Alameda Company, the San Joaquin Valley, and the California and Oregon Companies. The work was prosecuted on both ends of the line with great energy, attracting the attention and admiration of the whole civilized world. In 1868 three hundred and fifty miles had been completed on the Union Pacific, and track-laying was going on at the rate of a mile a day. In May, 1869, the two roads met at Ogden, Utah, and an all-rail line existed from the Atlantic to the Pacific Oceans. The last spike driven was made of gold; and the event, telegraphed instantly to all parts of the Union, was the occasion of public rejoicing and excitement everywhere. Flags were exhibited, cannon fired, and meetings of public congratulation held, to celebrate the completion of the great national work.

34.[1] To the East, to the world at large, the opening of this Railroad is but opportunity for new wealth, a revolution to the courses of commerce, by putting America into intimate relations with Asia, and sending the traffic of the Indies across our Continent, a fresh impulse to civilization and the founding of a new empire on the Pacific Coast. But to the pioneers in the mountains and on the plains of the interior,

[1] Bowles, Samuel, *Our New West,* pp. 71-73, New York, 1869.

Editor's Note.—Samuel Bowles (1826-1878) was an American journalist. He distinguished himself as the editor of the *Springfield Republican* (1844-1878). His two books, *Across the Continent* (1865) and *The Switzerland of America* (1869) were later combined into one volume under the title *Our New West.*

and along the States of the Pacific shore, it is something more and deeper. It is moral and social refreshment and rehabilitation. It was touching, even to tears, when we first visited these regions in 1865, to hear the appeals of the people for this that they now have so much more quickly than they then dreamed of. The first question, from man or woman, was of the Pacific Railroad. "When *will* it be built?" "Do use your influence to hasten it on." "We starve in soul and in heart and in pocket for that." It was the hunger, the prayer, the hope of all these peoples. For then, and without this chord of quick sympathy and communication, they did not feel at ease or at home in the far West. None of them ever spoke of California or Nevada as their home. "Home" was in the East. They were ever talking of going "Home." "When I was home last"; "I mean to go home next year," or, "just as soon as the Railroad is done"; "I have never been home since I came out"; "I fear I shall never see home again," . . . these and kindred phrases, unconsciously uttered almost, told where the heart was,—told of the yearning hunger of these pioneer spirits, not simply for "the cots where they were born," not merely for the circles of their kindred, nor the hills and the valleys amid which they were reared,—all these and something more,—but for the close contact and quick sympathy with the completer social, moral and intellectual life of the East, the absence of which every earnest spirit, orphaned in far away regions, feels above all other lackings. The Railroad is the chord along whose quick lines moves this food for the early settlers of our New West. It brings them home; more, it carries home to them. Though they may never see its rails, or ride in its trains, they will feel its influence, and be more content and richer in their lives. It puts the great sections of the Nation into sympathy and unity; it marries the Atlantic and the Pacific; it destroys disunion in the quarter where it was ever most threatening; it brings into harmony the heretofore jarring discords of a Continent of separated peoples; it determines the future of America, as the first nation of the world, in commerce, in government, in intellectual and moral supremacy. Who shall say that any price was too great to pay for these results?

Early History of Express Companies

35.[1] The express-business really took its rise in the days of stage-coaches, or at least before the railway-system had grown beyond its early infancy. It grew out of the robberies of stage-coaches, and of a practice, still common in all the new parts of the country, of forwarding packages of money and valuables by passengers travelling by stage. Before the establishment of the railroads, merchants and banks employed members of the legislature, and other trustworthy citizens, in their journeys to New York, Boston, Albany, and other large cities, to take with them, and deliver to their correspondents, the remittances

[1] Bolles, Albert S., *Industrial History of the United States*, pp. 659-660. Norwich, Conn., 1889. See note p. 23.

which they did not dare put into the United-States mail-bags for fear of robbery. On the Western plains, down to within ten years, many a passenger has had his fare paid to the States from the mining-regions, in consideration of his carrying with him in the coach, and delivering to the railways on the Missouri, the bars of gold and silver which there was no other method of transmitting to the States so cheaply and safely. In 1840 this irregular practice took the form of a legitimate business through the efforts of Mr. Alvin Adams of Boston, the founder of the Adams Express Company. There was then no railroad to New York; and Mr. Adams began carrying letters and parcels to New York by stage, to Allyn's Point, Conn., and thence by steamboat to the metropolis. He was a man of singularly engaging manners and manly character, and he soon won such confidence that he gained a very large patronage. In a short time the business grew so large, that he ceased to travel himself, and engaged messengers to make the trips to New York for him. Then boxes and bundles began to be sent, and a man with a wheelbarrow was hired to do the collecting and distributing in Connecticut. Then a wagon was hired for the same purpose. This latter was so important a step, that there was much meditation about it in advance, before Mr. Adams decided upon it. When the New-York and New-Haven Railroad was completed, the company offered to give Mr. Adams a car for carrying money and valuable packages for $1,700 a month. The offer was accepted with fear and trembling, but proved a success from the start. From this beginning the business grew up, until Mr. Adams had agencies in every part of the country from San Francisco to Boston. The Adams Express Company was then formed with a capital of $1,000,000, and has ever since transacted a colossal business. In New-York State the express-business took its rise almost simultaneously with the start in New England, the pioneer in the work being Mr. Henry Wells of Aurora, N. Y. It began in the same way, Mr. Wells travelling, however, by rail, and carrying his bundles with him in the car. The express-company of Wells, Fargo, & Company, which he organized, has had as extensive a ramification over the country as that of Mr. Adams. It was followed by other companies in different parts of the country; and the institution now forms so intimate and necessary a part of the transportation-business of the country, that no railroad, however short or local, is now without its special accommodations for express-packages. The companies are an adjunct of the railroad-system of the country. They rarely own cars of their own; but they perform the service to the public which they have been called into existence to discharge by contracts with the different connecting-lines, which secure the rapid and uninterrupted transmission of packages, regardless of the conflicts of interest of the different roads, and the obstacles they throw in each other's way in the transaction of ordinary business.

The fast-freight system is only the application of this idea to the

transmission of ordinary commercial freight. This system has grown up entirely within the last fifteen years. The necessity for fast-freight companies did not arise from the dangers of robbery of the cars, but from the detentions of freight in all parts of the country, owing to the discordance of interests among connecting and competing lines. Despatch and safety could not be secured without the creation of some responsible agency distinct from the railroads themselves, with which, on the one hand, the public could deal direct, and which, on the other hand, would secure that concert of action among the roads, as far as freight was concerned, which the roads could not achieve themselves. The experience of the express-companies showed how these desirable ends could be secured.

CHAPTER XI

THE WESTWARD MOVEMENT AFTER 1820. IMMIGRATION AND THE GROWTH AND DISTRIBUTION OF POPULATION

AN INDICATION of the rapid economic expansion of the Old Northwest—comprising the states of Ohio, Indiana, Illinois, Michigan, and Wisconsin—is found in the growth in population. Only 272,324 people inhabited this vast area in 1810; by 1830 the number had increased to 1,470,018; three decades later the total had advanced to 6,926,884 (No. 1). In the old Southwest a steady increase in population also occurred, but somewhat earlier than in the Northwest.

With the introduction of better means of communication the progress of the West became one of the outstanding factors in shaping the economic destiny of the United States. Just as steam navigation on the Ohio and Mississippi Rivers caused the development of the trade from north to south, so the opening of the Erie Canal made possible an extensive trade from east to west (Nos. 2-3). As a result greater specialization in economic activities throughout the country was made possible—*i.e.*, cotton culture in the South, grain-growing and stock-raising in the West, manufactures in the East. This intensification of the territorial division of labor brought about a remarkable increase in the domestic commerce of the nation. In the South cotton culture began its westward march into the Mississippi Valley, and even across the boundary into Texas. With the extension of the acreage the size of the crop increased from 334,228 bales (of 500 lbs. each) in 1820 to 732,518 bales a decade later; by 1835 it had passed the one million mark. To satisfy the demand on the part of the South for agricultural products the Northwest extended its grain-growing area each year. Combined with the demand for American grain in European markets, especially in England after the repeal of the Corn Laws, the Northwest easily solved the problem of disposing of a steadily growing surplus. The development of commercial centers in the West followed, the Great Lakes becoming the center of a thriving trade. Although the supply of manufactured goods needed in the West now could be obtained without much difficulty from the East, the industries of the Northwest continued

to make considerable progress as a result of their proximity to the sources of raw materials (Nos. 4-7).

With the growth in population, resulting both from a natural increase and from immigration, aided by invention of agricultural implements which made possible large-scale agriculture, the successful conquest of the Northwest was assured. (Nos. 8-17).

The Far West: No single factor in American economic history is more spectacular than the occupation of the territory west of the Mississippi River. By the middle of the century tens of thousands of adventurers and settlers were moving into this region. Gold which the colonists had so eagerly sought on the Atlantic coast at last had become an influential factor in the development of the North American continent. Although the water routes were used principally, there nevertheless began fairly early a steady current of migration across the dreary prairies that lay between the settlements immediately west of the Mississippi and the rich slopes of the Pacific coast. In the development of the trade with the Far West privately operated express companies played a noteworthy rôle. But it was not until the completion of a railway to the region west of the Rocky Mountains in 1869 that doubts as to the possibility of making the Far West an integral part of the United States disappeared.[1]

The Northwest

1.[2] Much has been published already about the West,—the Great West,—The Valley of the Mississippi.—But no portion of this immense and interesting region, is so much the subject of inquiry, and so particularly excites the attention of the emigrant, as the States of Ohio, Indiana, Illinois, Missouri, and Michigan, with the adjacent territorial regions.

All these States have come into existence as such, with the exception of Ohio, within the last twenty years; and much of the territory, now adorned by the hand of civilization, and spread over with an enterprising, industrious and intelligent people,—the field of public improvements in Canals and Railways,—of Colleges, Churches, and other institutions, was the hunting ground of the aborigines, and the scene of border warfare. These States have been unparalleled in their growth, both in the increase of population and property, and in the

[1] See pp. 370-374.

[2] Peck, J. M., *A New Guide for Emigrants to the West,* pp. v-vii. Boston, 1836.

Editor's Note.—J. M. Peck (1789-1858) spent many years of his life as an itinerant preacher and teacher in the Northwest, especially Illinois. In his day he was recognized as one of the most reliable authorities on matters pertaining to pioneer life in the "West." His reputation was well deserved, as most of his writings indicate.

advance of intellectual and moral improvement. Such an extent of forest was never before cleared,—such a vast field of prairie was never before subdued and cultivated by the hand of man, in the same short period of time. Cities, and towns, and villages, and counties, and States never before rushed into existence, and made such giant strides, as upon this field. . . .

. . . . . .

. . . such are its [the West's] admirable facilities for commerce by its numerous navigable rivers, and its lines of canals, some of which are finished, and many others commenced or projected,—such the richness of its soil, and the variety of its productions,—such the genial nature of its climate,—the enterprise of its population,—and the influence it must soon wield in directing the destinies of the whole United States, as to render the Great West an object of the deepest interest to the American patriot. To the philanthropist and Christian, the character and manners,—the institutions, literature and religion of so wide a portion of our country, whose mighty energies are soon to exert a controlling influence over the character of the whole nation, and in some measure, of the world, are not less matters of momentous concern.

> "The West is a young empire of mind, and power, and wealth, and free institutions, rushing up to a giant manhood, with a rapidity and power never before witnessed below the sun. And if she carries with her the elements of her preservation, the experiment will be glorious,—the joy of the nation,—the joy of the whole earth, as she rises in the majesty of her intelligence and benevolence, and enterprise, for the emancipation of the world."
>
> —Beecher.

Amongst the causes that have awakened the attention of the community in the Atlantic States, to this Great Valley, and excited the desires of multitudes to remove hither, may be reckoned the efforts of the liberal and benevolent to aid the West in the immediate supply of her population with the Bible, with Sunday Schools, with religious tracts, with the gospel ministry, and to lay the foundation for Colleges and other literary institutions. Hundreds of families, who might otherwise have remained in the crowded cities and densely populated neighborhoods of their ancestors, have had their attention directed to these States as a permanent home. And thousands more of virtuous and industrious families would follow, and fix their future residence on our prairies, and in our western forests, cultivate wild lands,—aid in building up our towns and cities, and diffuse a healthful moral and intellectual influence through the mass of our present population, could they feel assured that they can reach some portion of the Western Valley without great risk and expense,—provide for their families

comfortably, and not be swept off by sickness, or overwhelmed by suffering, beyond what is incident to any new country.

Effects of the Opening of the Erie Canal

2.[1] The western termination of the Erie canal looks out upon Lake Erie, the most southerly and central of the great chain of navigable lakes, which stretches far into the interior from our western boundary. Around these inland seas, a cluster of five powerful States is rapidly rising. The territory which they comprise, and which is to become tributary to the canal, embraces that great area, extending from the lakes on the north to the Ohio on the south, and from the western confines of this State to the upper Mississippi, and containing 280,000 square miles. To measure its extent by well-known objects, it is fifteen times as large as that part of the State of New York, west of the county of Oneida—nearly twice as large as the kingdom of France—and about six times as extensive as the whole of England. It contains 180 millions of acres of arable land, a large portion of which is of surpassing fertility.

The productive power of this region, and its capability of supplying tonnage for export, are greatly strengthened by the facilities which it enjoys for cheap and easy transportation. In this respect, no country on the face of the globe enjoys greater natural advantages; for it is nearly encircled by navigable waters; and its broad area is intersected in numerous directions by streams furnishing ample means of conveyance, while unusual facilities for the construction of canals, and other artificial channels of communication, are afforded by the level and uniform character of its surface.[2]

These being its geographical advantages, it needs only the requisite number of inhabitants, to fully develope its agricultural resources. Its progress in this respect has been truly surprising. In 1816, Ohio was the only organized State government within its limits. In that year, Indiana, having obtained the requisite number of 60,000 inhabitants, entered the Union, and took its place by the side of Ohio. Illinois and Michigan were then distant and feeble territories, with a few settlers thinly scattered over their broad surface, while Wisconsin, unknown even by name, was an undistinguished portion of the great North-Western territory. In the brief period of twenty-one years, such has been the influx of population into this great district, that Ohio, the eldest member in this brotherhood of nations, now numbers 1,400,000 inhabitants; Indiana upwards of 600,000; Illinois and Michigan, (both of whom have organized their governments and come into the Union,) 700,000; while west of Lake Michigan, not only is Wisconsin rapidly rising, but even beyond the upper Mississippi, 30,-

[1] New York (State) Legislature. Assembly. Committee on Ways and Means. *Report upon the Finances and Internal Improvements of the State of New York, 1838.* Boston, pp. 46-55.

[2] See pp. 312-318.

000 citizens have already laid the foundation of yet another State. Such is the onward march of this population, that the amount of its annual increase alone exceeds in number the white inhabitants of ten of the States of the Union. The population already embraced within the district in question, falls little short of three millions, and if the same rate of progress shall be maintained for the twelve years next to come, by the year 1850 it will exceed six millions.

The peculiar activity and energy of these people, and their power most rapidly to develope the resources of the broad domain which they inhabit, are also worthy of consideration, in estimating the eventual extent of their trade. They probably possess a greater aggregate power of production than any other portion equally numerous of the human race. Their population is made up almost exclusively of the young, the resolute, the vigorous, and the intelligent, who have gone from the more crowded communities in the eastern and middle portions of the Union, to seat themselves around their chain of waters, and there build up an empire. They have taken with them the laws, the habits, the language, and the institutions, civil and religious, of their parent States, but above all, they have carried into that vast field an honest love of labour, and in the very act of organizing their governments, they testified their willingness to exert and rely on their own energies, by prohibiting slavery forever, throughout all their limits.

This group of inland States has two outlets for its trade to the ocean; one by the Mississippi to the Gulf of Mexico; the other through Lake Erie and the navigable communications of this State to the Atlantic. Whether it be attributable to similarity of origin, of laws, or of habits, or of ties of consanguinity, or superior salubrity of climate, this people evidently prefer the market on the Atlantic, and they are making prodigious efforts to reach it. Three great canals, (one of them longer than the Erie Canal,) embracing in their aggregate length about one thousand miles, are to connect the Ohio with Lake Erie, while another deep and capacious channel, excavated for nearly thirty miles through solid rock, unites Lake Michigan with the navigable waters of the Illinois. In addition to these broad avenues of trade, they are also constructing lines of rail-roads, not less than 1,500 miles in extent, in order to reach with more ease and speed, the lakes, through which they seek a conveyance to the sea-board. The undaunted resolution of this energetic race of men is strikingly evinced by the fact, that the cost of the works which they have thus undertaken, (and most of which are in actual progress) will exceed forty-eight millions of dollars—a sum far exceeding all that New York, with two millions of inhabitants, and two hundred years of accumulated wealth, has ever attempted. The circumstance, moreover, is particularly important, that the public works in each of these widespread states are arranged on a harmonious plan, each having a main line supported and enriched by lateral and tributary branches, thereby

bringing the industry of their whole people, into prompt and profitable action, while the systems themselves are again united on a grander scale, in a series of systems, comprising an aggregate length of more than 2,500 miles, with lake Erie as its common centre.

The various portions of this vast work are now in a train of rapid construction. Indiana alone has 6,000 men in her employ; and Ohio, Illinois, and Michigan are making correspondent efforts; so that it may be confidently predicted, that within seven years from this time, the whole inland trade of that broad region around the lakes, will crowd the entrance of the Erie canal on its way to the Atlantic.

It will at once be obvious, that the whole of the tonnage thus to be furnished by these communities, whatever may be its bulk, will pay to our treasury a transit duty for the whole length of the canal; and will therefore yield a revenue twice as large as an equal quantity of products from the districts of our own State, mid-way between the Lakes and the Hudson.

And what will be the amount of this tonnage, and by what standard shall we measure it?

If we take the area and the products, and the population of our own State as a guide, we fall far short; and even if we resort to more populous nations—if we select England or France, and compare their productive power with that of this youthful and rapidly increasing race, the parallel will not be complete; for a much smaller proportion of the inhabitants of those kingdoms is devoted to agricultural pursuits; nor is their inland commerce wholly concentrated with any single channel.

But we, fortunately, possess an adequate and appropriate standard in the Mississippi river, the great rival and competitor of the Erie canal, with which it is destined hereafter to hold divided sway over the vast trade of the west. The number of inhabitants who at present employ that stream and its tributaries, for the purpose of conveyance, is scarcely five millions, and yet the amount which they paid during the last year for transportation on its waters, was between eight and nine millions of dollars.

The momentous question, whether the tonnage of the inland district under examination is to seek the Atlantic through the Erie Canal, or descend the Mississippi to the Gulf of Mexico, is mainly to depend upon the comparative cost of transportation. But when we consider the circuitous course of the Mississippi, the loss of time in ascending its strong current, and the greater rapidity of communication presented by the Atlantic route; when we advert moreover to the ample volume and trifling lockage of the enlarged canal; and especially when we estimate the commercial effects of the navigable passage opened by the Hudson through the Alleghany ridge; we shall perceive that when the artificial communications thus concentrating upon Lake Erie shall be put in full operation, the cost of transporting agricultural

products from the interior of this district will not materially vary, whether carried to the Atlantic or the Gulf of Mexico. The inference, then, may safely be drawn, that whenever a population of five millions around these western waters shall resort to the Erie canal for the means of conveyance, they will supply it with an amount of tonnage equally great with that now transported on the Mississippi by an equal number of inhabitants.

It is estimated that the value of agricultural products which annually descend the Mississippi and its tributaries, has already reached $70,000,000. The value of the property transported on the canals of the State of New-York, during the year 1836, is shown by official tables to be $67,000,000. Of that amount, it may be estimated that $50,000,000 consisted of property belonging exclusively to a portion of the population of this State not exceeding a million and a half in number, being at the rate of $33.33 for each inhabitant; and that the amount which they paid for its transportation exceeded two millions of dollars. If the same scale of production and consumption shall be assumed for the population of the district in question, (and no reason is perceived why it should not be,) the six millions of inhabitants in the west who will resort to the Erie canal for the means of conveyance, will furnish tonnage, in exports and imports, of at least $200,000,000 in value. The experience of other nations will show that this amount is not over-estimated. The food alone produced in England in the year 1835, by an agricultural population of about eight millions, was valued by their political economists at $604,000,000; while that of France was ascertained by its Minister of Finance to be 5,237,000,000 of francs, or $980,000,000.

But there are peculiar reasons why the proportion of agricultural exports of this great inland population should far exceed that of other nations. The exuberance of their soil, the salubrity of their climate, and the cheapness of their lands, (arising from the vast supply within their limits) will enable them always to furnish food to every other portion of the continent, on more advantageous terms than it can be elsewhere produced. Labor there reaps its best reward, and harvests of an hundred fold repay its exertions; and such is the superior productiveness of this region, that when the completion of its great series of public works shall bring a bushel of wheat on the plains of Indiana within a few cents in price of a bushel in New England, its production in New England must cease. The same cause will probably operate to change the culture of portions even of our own State; for the unequalled fertility of the West will always enable it to supply those products requiring richness of soil with a less amount of labour, and consequently at a cheaper rate, than they can be produced within our own borders.

The consequences then of perfecting these systems of intercommunication will inevitably be a distribution of labor, on a grand scale,

throughout the whole northern part of the continent: the maritime portions engrossing the active pursuits of navigation, commerce, and manufactures, while this central group of agricultural States will become the common granary of the Union, and discharge the important duty of supplying subsistence to all the surrounding communities. Indeed they have begun even now to perform that office. The valleys of the Miami, the Wabash, and the Illinois, are already pouring out their overflowing riches upon the cotton planting States below; and, although their power of exportation has hitherto been kept in check by their rapid increase in numbers, yet it is stated, that during the last season, exports amounting in value to 15 or 20,000,000 of dollars descended the Mississippi and its tributaries, from that part of the valley north of the Ohio, and constituting a portion of the great district in question. Nor is this descending stream of trade wholly withdrawn from our own channels of conveyance, for its proceeds find their way by a circuitous course through the canals of New York, and in that form swell the revenues of the treasury:—and the fact will strikingly illustrate the value of the Union, in binding in bonds of mutual benefit all our commercial interests, both foreign and domestic, and in animating every portion of our various industry, that the food thus exported from the inmost recesses of the West—exchanged for cotton at the mouth of the Mississippi—exported in that form to the workshops of Europe—again exchanged for their fabrics, and brought home by our shipping to the seaports of the north,—is at last returned through the Erie canal to the luxuriant valleys from which it first originated; thus revolving through the whole circle of our widespread commerce. It is only when we view the Erie canal as one of the mighty segments of that vast circle, that we can rightly estimate the importance and grandeur of its connexions.

3.[1] Forty years ago the surplus products of Ohio had accumulated beyond the means of transport, and wheat sold in the interior at 37 cents per bushel, and Indian corn at 10 cents. Then the Erie Canal was opened, and soon after the Ohio canals, and prices were raised more than 50 per cent. Now that the means of transport have been increased, the price of flour at Cincinnati is nearly double the price in 1826, the price of Indian corn is four times, and the price of pork three times as great. On the other hand, the prices of grain and meat on the seaboard have not been reduced in the least. It is therefore evident that the bulk of the gain obtained by the increased facility of transport has gone to the producer.

Not only has the transport of produce been cheapened, but also the cost of the transport of every article of manufacture required by the producer. Machinery and articles of foreign growth have been supplied him at almost seaboard prices. Sugar and coffee were no

[1] *The Merchant's Magazine and Commercial Review,* vol. lviii, pp. 123-124, William B. Dana, publisher and proprietor, New York, 1868. See note p. 217.

dearer at Cincinnati in 1860 than in 1835, although the population of the Western States in that interval had increased in enormous proportions.

Prior to the opening of the Erie Canal the only outlet to the ocean from the northwestern territory was by the river Mississippi. During the progress of the Erie Canal it was predicted that "it would never pay," for that the trade would follow the rivers, and was not likely to be diverted across the continent. It has turned out, however, that the artificial channels of trade, the canals and railroads, have completely diverted the course of the traffic as to a very large section of the West. There are various causes for this. The principal, no doubt, is the increase of the grain-consuming population in the States of the Atlantic. Other causes are to be found in the uncertainty of river navigation during the summer months, the greater speed and security of transport by railway, the superior advantages of New York to New Orleans as a place of trade; and the greater risk of damage to grain and flour by "heating" in the southern latitudes of the gulf of Mexico. Thus it results that New Orleans has not become a leading shipping port for grain, although her trade in cotton, sugar and tobacco has largely increased.

Much has also been due to the energy of the north; and the graphically expressed complaint of Prof. De Bow was well grounded when he declared, that "the bold, vigorous and sustained effort of the north has succeeded in reversing the very law of nature's God, rolled back the tide of the Mississippi and its ten thousand tributary streams, until their mouths, practically and commercially, are more at New York than New Orleans."

The first shipments of grain on the lakes, of which there is any record, was made in the year 1836, when the brig John H. McKenzie shipped at Grand Haven, Michigan, 3,000 bushels of wheat for the port of Buffalo.

The first shipment of grain from Chicago, consisting of 78 bushels of wheat in 39 sacks, was made in 1838. The first shipments from the State of Wisconsin were made three years later, in 1841. These shipments consisted of about 4,000 bushels of wheat purchased at Milwaukee on Canadian account.

In 1848 the Illinois and Michigan Canal was completed, opening up another great field of cultivation in the State of Illinois. In 1849 the era of railroad communication was inaugurated by the opening of the Chicago and Galena Union Railroad, traversing a widely cultivated district. This line of railroad led to a great and rapid development of the country which it traversed. In 1863 nearly eleven and a half million bushels of grain were carried over this line. These large shipments of grain to the seaboard soon began to excite an export movement.

The growth of the grain trade of the lakes is illustrated by the following table of

SHIPMENTS EASTWARD FROM MICHIGAN PORTS.

Year.	Bushels.	Year.	Bushels.
1858	27,879,293	1861	69,489,113
1859	25,829,753	1862	78,214,675
1860	43,211,448	1863	74,710,664

Such a record of progress is probably unparalleled. The production of grain in the Northwestern States is estimated to have increased from 218,463,583 bushels in 1840 to 642,120,366 bushels in 1860.

Thus the opening of the Erie Canal in 1825, which placed the Hudson River in communication with Lake Erie, inaugurated a new era in the trade of the United States. The shores of the great lakes were brought by this line of communication into connection with the Atlantic by a navigable water-course through the entire State of New York. This grand avenue did, indeed, "develop a new world to the pioneer, the agriculturist and the merchant."

Growth of Industrial Centers in the West

4.[1] The reviving ascendancy of the manufacturing over the commercial interest creates a strong community of feeling between the northern and western sections of the union. Pittsburg, the young Manchester of the United States, must always have the character of a western city, and its maritime port be New Orleans. Corinth was not more truly the eye of Greece than is Pittsburg of America. Pennsylvania, in which it stands, uniting perfectly the characters of an Atlantic and a western state, is truly the *key-stone of the federal arch.*

But if the new states are thus linked with the north they have also some feelings in common with the south, and thus, drawing two ways, seem to consolidate that confederacy which Europeans have sometimes prophecied they would break. In the first place Kentucky and Tennessee, the oldest members of this young family, have not only been peopled from Virginia and the Carolinas, but originally made part of those states. Generously released from their jurisdiction, they still retain a marked affection for their parents; and have, too, a community of evil with them as well as of origin, in the form of black slavery. It is not unlikely, that the mixture of slave-holding and non-slaveholding states to the west of the Alleghanies, helps to balance the interests between the northern and southern sections of the Union on the floor of congress.

5.[2] We stopped at Pittsburg on our way hither at an excellent

[1] Wright, Frances, *Views of Society and Manners in America,* pp. 357-358. Ed. 2. London, 1822. See note p. 154.

[2] Wortley, Lady Emmeline Stuart, *Travels in the United States, etc., during 1849 and 1850,* pp. 161-165. London, 1851.

Editor's Note.—Lady Emmeline Stuart Wortley (1806-1855) in her *Travels in the United States* gives evidence of being a close observer of economic and social conditions in America.

hotel, called the Monongahela House. At Pittsburg we went to see some manufactories, and iron foundries, in a sort of a coal-scuttle on wheels. No mourning coach was ever so thoroughly black, methinks, inwardly and outwardly; and, that we might be in keeping with our vehicle, we found it obligingly undertook (without any outlay or trouble on our part) to put us all into decent mourning.

Pittsburg has as sable a complexion as Sheffield. It is situated at the confluence of the Monongahela and the Alleghany (the latter name, I believe, means "clear water"), which by their union form the noble Ohio. These two rivers, together, avail not to cleanse sooty Pittsburg; if they did, as Coleridge said of the Rhine at Cologne, nothing could ever wash them clean again (though it has *not* the hundred and seventy-two distinct "*mauvaises odeurs*" of that city). Nevertheless, in spite of its brunette colouring, it is a handsome town. With its suburbs, it contains about seventy-five thousand inhabitants; some say a hundred thousand.

A great number of Germans are settled at Pittsburg. In one manufactory (a glass one) we heard hardly any language but German spoken. An American in that manufactory looked rather reproachfully at us, with a glassy eye—or an eye to the glass—and said, we English were underselling them in articles of this material. I bore the "brittle" impeachment as well as I could;—this glass was slippery ground, and I was fain to slide off it.

In the place we next went to, without meaning to insinuate anything to the prejudice of Pittsburg, which is a well-principled and orthodox city, I doubt not, it really appeared to me they had dealings in the black art—(I must beg to disclaim any allusion to the half-mourning tints which seem the fashion here)—so wondrous was the rapidity of the processes, and the way in which the workmen appeared to be snowballing one another with huge lumps and blocks of red hot iron. The noise was very great, and the glare; but in the midst of the confusion a woman stood with a mite of a baby in her arms, an infant Cyclop, or young Vulcan himself, in bib and tucker,—to judge by the coolness with which it surveyed the scene and listened to the noise, as if the whole were got up for its especial edification, and it would like much to have all those pretty playthings that were being tossed about on all sides.

It was late, and our "coal-scuttle" stopped the way, so we departed, still leaving little Vulcan evidently deeply engaged in teaching his own young idea how to shoot, or to toss those nice balls of red hot iron, which he would also have liked uncommonly to stuff into his mouth, big as they were. We stepped most gingerly into our jetty coach; but in vain did we try to escape being made finished chimney-sweepers. Methinks it must have served a subterraneous apprenticeship in some coal-mine as a lowly waggon for conveyance of that article, before it was promoted to its present office above-ground—the

reverse of the fate of mortals. The driver was hopelessly black, having the features, however, of a white man, and the brogue of the Green Erin. He affected to guard our dresses from the wheel as we ascended, which delicate attention was but a refinement of barbarity, adding insult to injury. We met a number of similarly sable coaches, but I think ours bore the *belle*.

There are twenty-five furnaces, and five forges and rolling mills in Pittsburg, besides which, there are woollen and cotton factories, machine shops, tanneries, and hardware, cutlery, and several other manufactories in abundance. The city is lighted by gas, which is produced by the bituminous coal that fills the hills which surround Pittsburg. Most of the extensive manufactories are not *in* the city, but are distributed over a circle of about five miles' radius from the Court house, which stands on Grant's Hill. One of the suburbs of Pittsburg is called Birmingham.

6.[1] But rapid as the rise of Buffalo has been, it is nothing to the great town at the other extremity of the lake, called *Chicago*, which in a few years, and before the people of Europe had ever heard of it, contains 30,000 people, and bids fair to be one of the most important cities of the Union. It is situate in the state of Illinois, at the bottom of Lake Michigan, and commands a very short and easy water communication to the River Mississippi, by means of the Illinois and Michigan Canal, exactly a hundred miles long, and now in course of finishing. For, notwithstanding the bankruptcy of the State of Illinois, the London capitalists have recently advanced the requisite funds to complete the canal, which if any canal in the world could be expected to pay, it is this. The steamers from New Orleans to the south, and from Buffalo to the north and east, meet, all but this hundred miles; so that it would have been almost an act of suicide, having gone so far with their loans, not to go a little further and endeavour to make this one work at least productive, which it is sure to be as soon as finished. So that, by the summer of next year, a person may leave New Orleans for St. Louis on the Mississippi, by steam 1,800 miles, then join a smaller steamer for Peru, at the head of the Illinois River, three hundred miles more, then by a packet-boat through the canal, one hundred miles, to Chicago, when he goes all the way to New York by steam, 2,600 miles further; making the entire distance about 4,800 miles of uninterrupted water-travelling through the interior of a continent, a greater distance than exists even in India or China, or even Mr. Birchell's voyage through South America from Para at the mouth of the Amazon, up the Topayos and down the Paraguay to Monte Video, at the mouth of the River Plate. This was not so long as the American river communication from New Orleans to New York by way of Chicago.

[1] Rubio (Thomas Horton James), *Rambles in the United States and Canada during the year 1845*, pp. 113-114. London, 1846. See note p. 335.

7.[1] From Detroit we continued our course westward across the State of Michigan through a country that was absolutely wild till the railway pierced it. Very much of it is still absolutely wild. For miles upon miles the road passes the untouched forest, showing that even in Michigan the great work of civilization has hardly more than been commenced. As one thinks of the all but countless population which is before long to be fed from these regions, of the cities which will grow here, and of the amount of government which in due time will be required, one can hardly fail to feel that the division of the United States into separate nationalities is merely a part of the ordained work of creation, as arranged for the well-being of mankind. The States already boast of thirty millions of inhabitants,—not of unnoticed and unnoticeable beings, requiring little, knowing little, doing little, such as are the Eastern hordes which may be counted by tens of millions; but of men and women who talk loudly and are ambitious, who eat beef, who read and write, and understand the dignity of manhood. But these thirty millions are as nothing to the crowds which will grow sleek and talk loudly, and become aggressive on these wheat and meat producing levels. The country is as yet but touched by the pioneering hand of population. In the old countries agriculture, following on the heels of pastoral patriarchal life, preceded the birth of cities. But in this young world the cities have come first. The new Jasons, blessed with the experience of the old world adventurers, have gone forth in search of their golden fleeces armed with all that the science and skill of the East had as yet produced, and in setting up their new Colchis have begun by the erection of first-class hotels and the fabrication of railroads. Let the old world bid them God speed in their work. Only it would be well if they could be brought to acknowledge from whence they have learned all that they know.

Our route lay right across the State to a place called Grand Haven on Lake Michigan, from whence we were to take boat for Milwaukee, a town in Wisconsin on the opposite or western shore of the lake. Michigan is sometimes called the Peninsular State from the fact that the main part of its territory is surrounded by Lakes Michigan and Huron, by the little Lake St. Clair, and by Lake Erie. It juts out to the northward from the main land of Indiana and Ohio, and is circumnavigable on the east, north, and west. These particulars refer, however, to part of the State only, for a portion of it lies on the other side of Lake Michigan, between that and Lake Superior. I doubt whether any large inland territory in the world is blessed with such facilities of water carriage.

[1] Trollope, Anthony, *North America,* pp. 114-115. New York, 1862.

Editor's Note.—Anthony Trollope (1815-1882) was an English novelist connected with the British postal service. For pleasure and in an official capacity he visited the United States on several occasions. While gaining his reputation primarily as a novelist his volume *North America* was well received and still constitutes an important although somewhat tedious commentary on social and economic conditions of the Civil War period.

Immigration: Advice to Prospective Immigrants

8.[1] . . . To leave country, friends, and relations, and fix their residence in a distant land, where the habits and the feelings of the people are so different, where there are none to rejoice in their prosperity, and where the voice of sympathy or condolence will not be heard in their afflictions, are circumstances which should be sufficient to cause every one duly to weigh the advantages or disadvantages of removal. When to this are added, the extremes of the climate of the United States, which are so disagreeable to Englishmen;—the expense and trouble of a voyage across the Atlantic;—and the risk of not succeeding in America: these, and many more reasons, demand a pause from all, before they take such an important step as to remove a family to this distant region.

Those who are in affluence in England, living upon the income or interest of their property, ought by no means to entertain the idea of emigrating thither. In the large cities of the United States, the expense of maintaining and educating a family will be little less than in Great Britain. Although there are no internal taxes to the general government, and the taxes to the state government will not exceed one-sixteenth of the rental of the dwelling; and although butcher's meat, fish, vegetables, wine, spirituous liquors, &c. are cheaper than in England; yet house rent, fuel, servants' wages, and clothing, will nearly make up the difference. In the small towns and villages of that country, a family can be supported at one-third less expense than in the large cities; but a family residing in some villages in England, living in a careful and frugal manner, would be much more comfortable than they possibly could be in the United States, and the expense would not be much greater. That degree of freedom which the servants and lower orders assume in America, is really disagreeable to those who have not been accustomed to it. We may speak in favour of equality; but the fact is, that nearly all who advocate this doctrine "wish to reduce every one to the equality of themselves; but they by no means wish to raise those who are below or beneath them to their own level."

Another description of persons will find great difficulty in succeeding; these are, schoolmasters, clerks, attorneys, &c. Education being very easily attained in the Eastern New England States, there are always many Americans of these descriptions wanting employment.

Another class of individuals ought to be very cautious before they embark for the United States; these are weavers, cotton-spinners, and working manufacturers. The manufactures of America are yet in their infancy, and those workmen who can procure employment obtain good wages; but I have met with many, who, having travelled in vain from Massachusetts to Maryland, and from thence to the Western Country, in quest of employment, have expended what little they had

[1] Holmes, Isaac, *An Account of the United States of America,* pp. 124-129. London, 1823.

saved in Britain, and have actually experienced great distress; not having been accustomed to agricultural work, they were wholly unfit for it: unless this description of persons can obtain a certain or positive engagement, I would by no means advise them to emigrate.

The lower class of labourers will obtain employment during the harvest months; but in winter it will be difficult to find work. In New York, Philadelphia, and Baltimore, during the winter, the labourers are often reduced to great wretchedness: fuel is frequently enormously high; and those who have been in a country where the thermometer is sometimes several degrees below zero, or the freezing point, will be able to form an opinion of the sufferings of a family without fire, and with but little clothing.

Merchants, tradesmen, shopkeepers, and manufacturers, might probably succeed, and I refer to the chapter upon Commerce and Manufactures for the ground of my opinion; yet even in these departments there is a great risk for strangers, as they have to seek for connections, and to become acquainted with the mode of transacting business; and perhaps by the time they have acquired such knowledge, and obtained such connections, their resources are exhausted.

For the wealthy farmer, I do not believe that at present there are any inducements to emigrate, the price of all agricultural productions being so low. But the small farmer, who has resided near a town, who has a family, and has been accustomed to raise poultry and vegetables, and who understands well the management of milch cows, might succeed near any of the large cities in the United States; but such an one ought to take about five hundred pounds with him to enable him to purchase and stock a small farm.

Industrious labouring mechanics, tailors, shoemakers, joiners, blacksmiths, &c. will find employment throughout the Union. I would, however, advise them, upon landing at the large sea-port towns or cities, not to remain there expending what little money they possess, but to leave immediately for some small town or village. If they land at New York, in the western part of that state, they are as likely to meet with employment as in any part of the United States. If they should arrive at New Orleans in November or December, they might remain there until June or July, and it is probable they will obtain work at high wages, about two dollars per day; and the females, by sewing or washing, may make nearly as much. Whoever goes thither should not remain there during the sickly months. By means of the numerous steam-boats, they can go to a more healthy situation, and fix upon some place as a permanent settlement.

I have met with some mechanics, who have been much dissatisfied, and have deplored the circumstance of their quitting England; others, on the contrary, have expressed themselves in a different manner. One blacksmith, in a small town in one of the Eastern States, informed me, that by working only four hours in the day, he could maintain

himself and family very comfortably. A tailor, in a town in New Jersey, with whom I had a conversation relative to his returning to England, spoke as follows: "I should indeed be foolish to think of returning. Here I can obtain work at a price at least one-third higher than in England; there it was with great difficulty I could get employment. Certainly, the climate and many other things are disagreeable, but that corroding anxiety of not knowing whether I could maintain myself, is removed; and this more than recompenses me for coming hither." This man had endured great distress in England; but in the United States, he, with five females, whom he kept at work, (young ladies, as they are there called,) had full employment.

In New York, on the contrary, I have met with some mechanics, who stated, that the high price of fuel and house-rent made their situation no better with the wages of one dollar and a half per day, than what it was in England. For two comfortable rooms, in the large cities or towns, the rent would be nearly fifteen pounds English money per annum. When good Liverpool coals are sold in the city of New York at thirteen dollars the chaldron, it is considered as cheap a fuel as can be there consumed. This will give a tolerably accurate idea of the expense of fuel in the larger cities.

9.[1] Those who intend to emigrate to the Western States may embark for either New York, Philadelphia, Baltimore, or New Orleans. For those who arrive at the former cities, there will be about three hundred miles of land-travelling to Pittsburg. If there be a family, the best mode will be to purchase a covered waggon, which will cost 40 to 60 dollars, and take a few common cooking utensils with them: the horse will cost rather more than the waggon. Upon the road they will be able to purchase poultry &c. It will take nearly 20 days travelling, with a waggon and one horse, to arrive at Pittsburg, where the waggon and horse may be sold.

If there be only one or two persons, the best and cheapest mode will be to take the stage from Philadelphia, &c. Arrived at Pittsburg, the family or party must either purchase a skiff to descend the Ohio, or it is probable they may be able to agree with some person with a keel boat, to transport them to the place they design next to visit. A skiff would cost from six to eight dollars.

If a family arrive at New Orleans, I would advise them immediately to engage a passage in some of the steam-boats; and although they may not be able immediately to leave the city, yet they will be comfortably accommodated with board and lodging, and also have elegant apartments on board these boats. The expense of going to the Western Country by this mode will be a little increased, but it certainly will be more pleasant that land travelling. For those who are satisfied to go as deck passengers in these steam-boats, the amount will be very trifling.

[1] *Ibid.*, pp. 141-146.

I should suppose there are very few English persons who would wish to fix their abode either in a slave-holding state, or in the more northern states, where they would have five months' winter. The Southern States, as a permanent residence, even if slavery were not admitted, are not without their evils; the heat and insalubrity of the climate being sufficient to deter any European from fixing there. In New York, and one or two other states, a foreigner cannot hold land; therefore, if these be fixed upon, the emigrant must purchase in some other name, or obtain an act of the state legislature; which, however, would not be attended with any great expense.

The tide of emigration, at present, is to Alabama, Illinois, Indiana, Missouri, and Florida, all of which, excepting Illinois and Indiana, admit of slavery; therefore, if an emigrant abandon the old states, either these or Ohio are likely to be selected. I have already given my opinion, that a farm with some cleared land, and a house and barn already erected, would be most advisable for an European, and this can be obtained in any state of the Union. If the emigrant should determine otherwise, perhaps prairie, or open land, would be better than wood land; but in this case, the prairie land should be near a wood, and a certain number of acres of wood land should be included in the purchase, in order that the farmer may have fire-wood and fencing, and be able to build a house, barn, &c. A log-cabin would not cost more than forty to fifty dollars: a log-barn, with convenience for horses, cattle, &c. about one hundred dollars. A frame-house will cost from four to five hundred dollars.

The cultivating of wood land is tedious: the first year is consumed in erecting a log-house, in girdling a number of the trees, which consists in the taking off a circle of the bark, to destroy vegetation, and admit light and heat to the soil; in grubbing or taking up the small trees or shrubs; then ploughing (or harrowing, if it won't admit of the plough,) and sowing for a slight crop. Many of the forests, however, in America are entirely free from underwood.

Some persons cut down the trees at first, and thus clear the land. The mode which must be pursued will entirely depend upon the number or strength of hands the settler has to do his work. The trees are generally cut about three feet from the ground. In the Eastern States, they are afterwards ten years before they completely decay; in the Middle, Western, and Southern, only eight years. For the first two or three years after they are cut down, they require constant attention, to cut the young shoots or branches which are springing up. It is impossible to get up the roots of the trees, unless at an expense totally disproportionate to the benefit. When a number of trees are cut down, a fence is made; this is generally done by laying the trees, about five or six in height, in a zigzag manner, or something like the form of the letter V or W. In all the Eastern States there is a great quantity of stony land; they may frequently make fences of part,

but some are too large to be removed; in this case, a hole is dug, and the stone covered with earth; this of course is only in an old-settled farm.

Birbeck advises the taking over workmen. If you should do so, and go to the back settlements, you must fix upon such as you are willing to associate with; for both male and female servants, or, as they are there called, "helps," must eat and drink with the family, in the country places of the United States.

A gentleman of my acquaintance took with him, on his journey to the Western Country, a servantman who had long attended upon him in England. Two days after he had left Philadelphia, his boots were not cleaned. The master asked the reason: the answer was, "It was negroes' work to clean boots." This was obliged to be passed over. Dinner-time arrived; when, instead of John placing himself behind his master's chair, he took a chair, and seated himself at table beside him. The master was angry; but John told him he was in a land of liberty and equality,—and the master was obliged to submit.

New settlers should engage workmen in America; for the Americans, being more accustomed to the work they want to have performed, will be much better than Europeans. The price of workmen or labourers in the Western Country, is one dollar per day; but some persons agree to give the value of labour in wheat or Indian corn. Provisions are now very cheap throughout the whole of the Western States. Flour, 2½ to 3 dollars a barrel; beef, veal, mutton, and pork, 1d, to 3d. per lb.; fowls, 4d. to 6d. a piece; ducks, 6d. to 9d.; a goose, 1s. 6d. to 2s. 3d.; turkeys, 1s. 6d. to 2s. Groceries are much higher than at New York,—about one-third more. This is the case with all sorts of woollen, linen, and cotton goods. Horses and cattle are also cheap in the Western Country. A good cow may be bought for ten or twelve dollars, and a hog for two or three dollars. Horses differ so much according to age or appearance, that it is difficult to state the price; but a horse fit for farming work may be bought for about forty dollars.

In fixing upon a place, if it be wood land you intend to clear, it is considered that the best soil produces in general trees of the following sorts; locust, cherry, walnut, elm, sugar maple, beech, ash, satin-wood and papau:—middle-rate lands; oaks, hickory, dog-wood, and beech:—indifferent soil; black and red oaks, green, &c.:—the worst lands; black-jack oak, fir or pines, &c.

Those who determine to go to the Western States should take pins, needles, sewing-cotton, and all those small useful articles in a family, for perhaps they may be situated ten or twenty miles from a store, or shop. They should also take care to have a small chest of useful and common medicines. If they could make choice of a place where a few of their own countrymen had settled, it would be found particularly pleasant. These will be more willing to communicate their knowl-

edge, and be ready to assist; they will also render those little attentions which are found peculiarly agreeable. I can assure the emigrant, that his reception amongst the native Americans will not be very flattering.

10.[1] It is a momentous affair for a family, in the older States, surrounded with the ties of relations and friends, with local attachments for home, and all its recollections and *heart*-ties, to bid goodbye forever; to take a long last look of places and friends, which affection, time, and long familiarity, have made too dear; to quit all these, and plunge into the great stream of emigration, which leads, the adventurer knows not whither, requires nerve; for it is a very serious matter, and ought to be well considered and weighed, before ventured on. Still, if concluded on, a determined will and mature calculation should accompany the undertaking, which is to cast a *lifelong* destiny—no flinching, for on manly resolution depends success. It would always be better if those persons desiring to emigrate to Texas, with their families, could come and look at the country, before a final remove; but distance, expense, and consumption of time, generally prevent such cautionary measures. Therefore, a knowledge of the country must be acquired through the perceptions and judgments of other people; and, as men are governed in their views and representations by many causes, emigrants are frequently unhappily disappointed, and more especially if they are from the older States: the discomforts of a log-cabin; the jolting of an ox-cart, which takes the place here of a pleasure carriage; the homely roughness of the neighbors; illy suit the tastes of fastidious persons. But hardships, privations, and discomforts, must ever, for a season, be endured by the emigrant.

The sparseness and distance of neighbors (and perhaps the nearest may be a Dutchman), makes it lonely for the family at first, but this dreariness soon wears off; the scenery is new, everything around is strange and unusual; the prairies, the herbage, the trees and rocks belong, as it were, to a different creation; even the sky above is not the native heaven, the phenomena of Nature seem to be governed by new and strange laws.

The contemplation of these fills up the dreary void left in the mind by far distant objects, and the affections of the family gradually become concentrated on the new home. A few years of quiet industry pass by, the neighborhood fills up apace, small villages start up and grow with unprecedented rapidity, roads and cross roads and parallel roads mark the country, stores and churches and schools are not distant in any direction, markets and speculators come in competition for the coveted productions of the soil, people of wealth and extended enterprise begin to settle about, and lands and property rise higher and higher, until the emigrant finds himself wealthy, his family are

[1] Braman, D. E. E., *Information about Texas,* pp. 18-23. Philadelphia, 1858.

able to have the comforts and luxuries of refined society, and to educate and bring up their children in the ways of respectability and usefulness.

Emigrants should bring with them as many garden and other rare seeds as convenient; the more common seeds will be found in the country. Everything else let them turn into money, for it will be more expensive to bring cumbrous household and farming implements than to purchase them, unless they intend settling near the coast.

Emigrants from the Eastern, Southern-Atlantic, and Middle States, will do best to come by sea to Galveston, or Matagorda Bay.

The most economical, profitable, and pleasant way for settling in a new country, is to proceed after this plan:—Where there are eight or ten families in a neighborhood, who have made up their minds to seek a new home, let them organize themselves into a company, under written articles of agreement; each head of a family binds himself to furnish so much money for the general object; then ascertain the wholesale cost of transporting all of the families and effects to the shores of Texas; one of the members, a shrewd, capable man, is sent out to bargain for a suitable tract of land, that, when divided, shall suit all of their several wants; the first year they farm in common, and until, by their united labor, each family is furnished with a dwelling, fences, &c.; after that, when a good supply of grain has been raised to furnish the community until the next harvest, the land can be divided among them according to their respective advancements of capital. In this way a thrifty settlement at once arises, and becomes the nucleus around which other emigrants are constantly attracted, and in this manner can be purchased much cheaper. The dreariness of a solitary emigrant's life is never felt by members of a community, and the comforts and advantages of homogeneous society are retained, while land and property become immediately enhanced two or three hundred per cent.

Western Texas is an extensive country, and has many varieties of soil and productions. Excepting on the bottom lands of the rivers and water-courses, the people are mostly engaged in stock-raising; many of them exclusively, and others in connection with farming. This region, below 30°, and west to the Rio Grande, is very subject to long droughts during the summer; still the crops on the bottom lands seldom fail. No portion is sickly, but all is favorable to the life and energy of man and beast. The principal grass on the prairies is the far-famed *mesquit*, deservedly renowned for its universal abundance and nutritious qualities; during all the winter season, and after it has become sere and yellow, cattle and horses will eat it with the same avidity and benefit as when green. Of late years, large quantities have been cured and baled for distant markets, and the U. S. military posts always prefer it for their cavalry horses to the imported hay from cultivated grasses.

I would advise emigrants who want good and cheap lands, with plenty of mesquit prairie for stock range, to purchase on the Nueces, Rio Frio, or some of their branches. This is a desirable part of Western Texas, and has as many natural advantages as can be asked by any reasonable man. Land sells at from $1.50 to $2.00 per acre. The timber on the streams is *peccan, hackberry,* several kinds of *oak, cypress,* and *mulberry;* on the prairies are much *live oak* and *mesquit* timber.

There are many other portions of the west where the land is better adapted for raising cotton, but none that will so well suit the emigrant of moderate capital, and fill the measure of his utmost expectations and desires.

Early Immigration into the United States

11.[1] It is believed that the population of the United States has been much augmented by the emigrants from Europe: there are no authentic documents on this subject, and we can only estimate the increase we have thus acquired. The emigrants came principally from Great Britain, Ireland, and Germany; but few have, hitherto, arrived from other countries. In 1794, the emigrants, who arrived during that year, were estimated at ten thousand; and in 1806, Mr. Blodget said, from "the best records and estimates at present attainable," the emigrants who arrived in the United States did not average more than 4,000 per annum, for the ten preceding years. In 1794, the people in Great Britain were very much disposed to come to the United States; but this current was soon checked, by the acts of the British government. Though we admit, that ten thousand foreigners may have arrived in the United States in 1794; we cannot allow that they did so, in an equal number, in any preceding or subsequent year, until 1817. There were many difficulties in the way of the emigrants; some were deterred from the false reports which were industriously circulated concerning the healthiness of our climate; the British system of impressment, alarmed others: thirty persons have been impressed from on board a single passenger ship; the most active and vigorous were always selected, and they are the persons, who most commonly seek to better their fortunes in foreign countries; heavy charges in the form of fees, prevented the poorer classes; and the armies and navies of Europe employed many, who, under different circumstances, would have emigrated. In 1817, the emigrants were, probably, more numerous than in any preceding year. The following statement shows

[1] Seybert, Adam, *Statistical Annals . . . of the United States of America,* pp. 28-30. Philadelphia, 1818.

Editor's Note.—Adam Seybert (1773-1825) was a chemist by training, but devoted much of his time to political affairs, on two occasions serving in Congress (from 1809-1815 and again from 1817 to 1819). His *Statistical Annals,* which cover the period from 1789 to 1818, are of importance to the economic historian, although biased.

the number of the passengers who arrived in ten of the principal ports of the United States, from the 1st of January, to the 31st of December, 1817.

Ports.	Number of the passengers from Great Britain and Ireland.	Number of the passengers from Germany and Holland.	Number of the passengers from France.	Number of the passengers from Italy.	Number of the passengers from the British possessions in North America.	Number of the passengers from the West Indies.	Number of the passengers from all other foreign countries.	Aggregate of the passengers from all foreign countries.
Boston	960	32	43	7	837	171	150	2,200
New-York	4,834	252	674	14	1,273	464	123	7,634
Perth Amboy	117	...	...	..	520	...	...	637
Philadelphia	3,553	3,102	63	37	209	116	5	7,085
Wilmington (Del.)	.....	530	...	..	25	3	...	558
Baltimore	1,296	228	73	..	...	204	16	1,817
Norfolk	473	3	...	..	5	31	8	520
Charleston	596	13	40	..	...	94	4	747
Savannah	84	1	19	..	...	44	15	163
New-Orleans	64	8	333	..	32	442	...	879
	11,977	4,169	1,245	58	2,901	1,569	321	22,240

These returns were obtained from the records of the custom houses, except for Charleston, which was made from the report of the harbour master; they include all the passengers, citizens and aliens, who arrived in the ports enumerated.

The free population could only be affected by the emigrants from Europe: we will suppose that 6,000 of them arrived annually, from 1790 to 1810. In 1790 the free population of the United States amounted to 3,223,629 persons, and in 1810 it was 6,048,539; the actual increase in the twenty years, was 2,824,910, from which deduct 120,000, for the emigrants who arrived during that period, and allow for their increase at the extraordinary rate of 5 per cent. per annum, or 60,000 for the twenty years, making the aggregate from the emigrant stock 180,000 which, when deducted from the total actual increase above mentioned, will leave 2,644,910 persons for the augmentation, independent of any aid from abroad; or the duplication of the free inhabitants, without the additions from the emigrants, would only require about four-fifths of a year more than it did when they were added. The preceding view satisfies us that, during twenty years, our population has been immaterially augmented by the emigrants; and that, in this respect, we may consider ourselves independent of foreign nations. . . .

12.[1] Dr. Seybert has lately published a work entitled, *Statistical*

[1] Holmes, Isaac, *An Account of the United States of America,* pp. 159-160. London, 1823.

Annals of the United States; wherein he fixes the number of emigrants which have annually arrived, for about the space of twenty-five years, at 6000; and in this account he includes the year 1817, which was a most extraordinary one, the number of emigrants being estimated at 22,240. There can be no doubt, that the Doctor has had access to every authentic record to elucidate the subject; but I am disposed to fix the amount of emigration considerably higher. Let it even be fixed at 12,000 per annum; and supposing the mortality amongst the new settlers at one in forty-six, and the births to average one in fourteen; in the space of twenty-five years, by a rate of increase according to compound interest, it would give a little more than 565,000; which would only be accelerating the duplication of the inhabitants about twelve months.

I am inclined to fix the number of emigrants at 12,000, because many come into the country from Canada; and passengers are landed on the coast without any entry at the customs; for by the laws of several, if not of all the maritime states, the masters or owners of vessels are obliged to give bond, that none of the foreigners whom they introduce shall become chargeable to the town, or that they will indemnify or reimburse the cost. From every view which we can take of the subject, there is a great probability that the United States' population will be doubled at least every thirty years. If this should be the case, what a powerful and populous empire will this be in the course of a century! It may be expected that more than one hundred millions of human beings will then exist in this part of the world. What an extraordinary difference is there in the increase of population in the United States, compared with that of the nations in Europe. France, in 1720, had a population of nineteen millions in an area of 212,800 square miles; but nearly one century and a half must elapse, before the population will be doubled. M. Necker (*de l'Administration des Finances*) supposed, that the births in France were then one million per annum, in a population of twenty-six millions, and this was at a period when France enjoyed perfect tranquillity. Allowing four hundred thousand births in a year in the United States, and multiplying that by twenty-five and three-quarters, which is Mr. Necker's calculation, it gives nearly the actual population of the United States at present; but the births there must be about five hundred thousand annually, with its present population of nearly ten millions, to verify the American calculations.

13.[1] Instead of complaining of the sixty thousand emigrants per annum, and lowering the price of land, so as to induce dispersion, it would be wise, if it were possible, in the people of the United States to bring in sixty thousand more labourers per annum, and raise the price of land. This last cannot, perhaps, be done: but why should not the other? With a surplus revenue that they do not know what to do

[1] Martineau, Harriet, *Society in America,* vol. i, pp. 343-345. New York, 1837.
See note p. 174.

with, and a scarcity of the labour which they do not know how to do without, why not use the surplus funds accruing from the lands in carrying labour to the soil?

It is true, Europeans have the same passion for land as the Americans; and such immigrants would leave their employers, and buy for themselves, as soon as they had earned the requisite funds: but these, again, would supply the means of bringing over more labour; and the intermediate services of the labourers would be so much gained. If the arrangements were so made as to bring over sober, respectable labourers, without their being in any way bound to servitude, (as a host of poor Germans once were made white slaves of,) if, the land and labour being once brought together, and repayment from the benefited parties being secured, (if desired,) things were then left to take their natural course, a greater blessing could hardly befal the United States than such an importation of labourers.

I was told, in every eastern city, that it was a common practice with parish officers in England to ship off their paupers to the United States. I took some pains to investigate the grounds of this charge, and am convinced that it is a mistake; that the accusation has arisen out of some insulated case. I was happy to be able to show my American friends how the supposed surplus population of the English agricultural counties has shrunk, and in most cases disappeared, under the operation of the new Poor Law, so that, even if the charge had ever been true, it could not long remain so. By the time that we shall be enabled to say the same of the parishes of Ireland, the Americans will, doubtless, have discovered that they would be glad of all the labourers we had ever been able to spare; if only we could send them in the form of respectable men and women, instead of squalid paupers, looking as if they were going from shore to shore, to rouse the world to an outcry against the sins and sorrows of our economy.

14.[1] From 1820 to 1830, when the collectors of the customs were required to report to the State department the number of foreigners who had arrived in their respective ports by sea, we might have expected entire accuracy; but these reports are so much at variance with other documents, entitled to respect, and are confessedly so defective, that they cannot be relied on. Thus, to give an example, the number of emigrants who left the United Kingdom in 1829 for the United States, was, according to British official returns, 15,678; yet the whole number of foreign emigrants from all parts of the world, reported to the State department in the same year, was but 15,285, there being, besides less important omissions, that of New York for the third quarter. Again, the number of foreign emigrants returned to the State department for 1830, is but 9,466, though 30,224 landed in New York alone in that year, for the whole of which the proper

[1] Tucker, George, *Progress of the United States in Population and Wealth*, pp. 82-85. New York, 1843. See note pp. 158-159.

officers had failed to make any return. In consequence of these, and like instances of failure of duty, the number of foreign emigrants returned to the State department for the six years from 1825 to 1830, both inclusive, was only 87,140; whilst the number who emigrated from the United Kingdom to the United States for the same six years, according to the official accounts in that country, was 80,522, which allows but 6,618 for the number of emigrants to the United States from all the other parts of the world, though it is known that these (including the emigrants from the rest of the British dominions) are nearly equal to the number from the United Kingdom.

The more accurate returns, subsequently made to the State department, furnish us with some data for correcting these errors. By the official returns of British consuls residing in America, the number of emigrants from Great Britain and Ireland to the United States for the five years from 1833 to 1837, was 163,447; but, according to the reports of the collectors here to the State department, the whole number of foreigners who came to the United States, in the same period, was 324,750, which is very nearly double the number of those who were from Great Britain and Ireland.

If, then, we suppose that the British accounts were not less accurate in the last period of five years than in the first period of six, (and they were probably more so,) and that the emigrants from other countries to the United States bore as large a proportion to those from Great Britain and Ireland in the first period as the last, (which there is no reason to question,) then the British returns of emigrants to the United States would be to the whole number from all parts of the world in the ratio of 163,447 to 324,750, unless it were proper to make a deduction from the last number for those British emigrants who took their route to Upper Canada by way of New York.

To some, this deduction may not seem to be necessary, because they would consider that the number of those who came to the United States from Canada was likely to equal those who went to Canada by the route of New York, and especially during the civil commotions that broke out within the five years in question. Yet as, since 1834, the proportion of British emigrants who take the New York route is said to be "considerable," let us assume, in the absence of all precise data, that as many as one-third of those emigrants who land in New York afterwards proceed to Canada, and see how far the above-mentioned ratio is affected by that proportion.

The number of British and Irish emigrants who arrived at New York from 1833 to 1837, inclusive, was 152,164; and the number of those who left Canada for the United States, in the years 1834, 1835, 1836, and 1837, was 10,256. Supposing the number, in 1833, to have been in the same proportion, the whole number for five years would be 12,820. With these facts, the whole number of emigrants to the United States would be thus reduced, viz:

The total number who arrived in the United States,		324,750
British emigrants who left New York for Canada, one-third of 152,164,	50,821	
Deduct for those who left Canada for the United States,	12,820	
		38,001
		286,749

On this liberal estimate, then, of the number of British emigrants from New York to Canada, the proportion which the number from the United Kingdom to the United States bears to the whole number from all countries, is as 163,447 to 286,749, or nearly as 4 to 7. Applying, then, this rule to the 80,522 who emigrated from the United Kingdom to the United States from 1825 to 1830, we have 141,300 for the whole number of immigrants for the same six years. In the remaining four years, from 1821 to 1824, the number of foreign emigrants returned to the State department was 31,158, which, we may presume, bore the same proportion to the actual number as 87,140 to 141,300, and consequently would be 50,500. This number for the four years, added to 141,300 for the six years, would give us 191,800 for the whole number of immigrants from 1820 to 1830. If we make a lower estimate of the number who proceed from New York to Canada, as probably we ought, and allow something for deficient returns to the State department, we cannot suppose the whole number to be short of 200,000, and I shall accordingly so consider it.

From 1830 to 1840, we have better materials than in any preceding decennial term, for estimating the number of foreign emigrants to this country. The following is a summary of the returns that have been made to the State department of the number of passengers who arrived in the United States in that period:

Years.	Americans.	Foreigners.
1831	1,256	15,713
1832	1,155	34,970
1833	1,251	58,262
1834	2,114	64,916
1835	3,320	45,444
1836	4,029	76,923
1837	3,813	79,205
1838	3,964	42,731
1839	4,171	70,494
1840	5,810	86,338
Total	30,883	574,996

It appears, however, that this account, though far more accurate than any preceding it, is not free from errors, some of which are con-

siderable. Thus, the numbers of foreigners in the preceding statement for 1831 and 1832, are set down at 15,713 and 34,970, making together 50,683; whereas the number who arrived in New York alone in those years, was 80,328. If to this number we add one-fourth for the ordinary proportion arriving at other ports, we shall have 107,104, thus showing omissions in those two years amounting to 56,421. The omissions in the subsequent years are believed to be comparatively small. Correcting, then, these errors, the whole number of emigrants who arrived at all the ports in the United States from all parts of the world, between 1830 and 1840, would be 631,417. Allowing the number of those who left New York for Canada to be in the same proportion as before, that is, as 38,000 to 324,750, we have 58,690 for the number of persons thus migrating in the whole ten years. Deducting this number, and 100,000 for the emigration of American citizens to Texas and Canada, from 631,417, we have 472,727 for the whole gain to the white population by immigration in the same period.

15.[1] Instead of scattered notices from shipping lists, the arrival of passengers has been officially recorded at the custom-houses, since 1819, by act of Congress. There are some deficiencies perhaps in the returns of the first ten or twelve years, but the subsequent reports are considered reliable. While the classified lists exhibit the whole number of foreign passengers, the great majority of whom are emigrants, they also furnish valuable information not otherwise obtainable respecting the statistical history of immigration.

The following numbers, registered under the act of 1819, are copied from the authentic summary of Bromwell, to which the numbers for the last five years have been added for the annual reports of the State Department, thus bringing the continuation down to the year of the present census.

[1] *Preliminary Report on The Eighth Census, 1860,* pp. 13-14. Washington, 1862.

STATEMENT OF THE NUMBER OF ALIEN PASSENGERS ARRIVING IN THE UNITED STATES BY SEA FROM FOREIGN COUNTRIES FROM SEPTEMBER 30, 1819, TO DECEMBER 31, 1860

	Year.	Males.	Females.	Sex not stated.	Total.
Year ending September 30,	1820	4,871	2,393	1,121	8,385
	1821	4,651	1,636	2,840	9,127
	1822	3,816	1,013	2,082	6,911
	1823	3,598	848	1,908	6,354
	1824	4,706	1,393	1,813	7,912
	1825	6,917	2,959	323	10,199
	1826	7,702	3,078	57	10,837
	1827	11,803	5,939	1,133	18,875
	1828	17,261	10,060	61	27,382
	1829	11,303	5,112	6,105	22,520
	1830	6,439	3,135	13,748	23,322
	1831	14,909	7,724	.....	22,633
	1832	34,596	18,583	.....	53,179
Quarter ending December 31,)	1832	4,691	2,512	100	7,303
Year ending December 31,	1833	41,546	17,094	.....	58,640
	1834	38,796	22,540	4,029	65,365
	1835	28,196	17,027	151	45,374
	1836	47,865	27,553	824	76,242
	1837	48,837	27,653	2,850	79,340
	1838	23,474	13,685	1,755	38,914
	1839	42,932	25,125	12	68,069
	1840	52,883	31,132	51	84,066
	1841	48,082	32,031	176	80,289
	1842	62,277	41,907	381	104,565
First three quarters of)	1843	30,069	22,424	3	52,496
Year ending September 30,	1844	44,431	34,184	.....	78,615
	1845	65,015	48,115	1,241	114,371
	1846	87,777	65,742	897	154,416
	1847	136,086	97,917	965	234,968
	1848	133,906	92,149	472	226,527
	1849	177,232	119,280	512	297,024
Year ending September 30,	1850	196,331	112,635	1,038	310,004
Quarter ending December 31,)	1850	32,990	26,805	181	59,976
Year ending December 31,	1851	217,181	162,219	66	379,466
	1852	212,469	157,696	1,438	371,603
	1853	207,958	160,615	72	368,645
	1854	256,177	171,656	.....	427,833
	1855	115,307	85,567	3	200,877
	1856	115,846	84,590	.....	200,436
	1857	146,215	105,091	.....	251,306
	1858	72,824	50,002	300	123,126
	1859	69,161	51,640	481	121,282
	1860	88,477	65,077	86	153,640
Total		2,977,603	2,035,536	49,275	5,062,414

Growth and Distribution of Population

16.[1] In this western advance population has increased at a more rapid rate than the settled area, as shown in the accompanying table:

INCREASE OF POPULATION AND SETTLED AREA

Decades.	Increase, per cent.		Decades.	Increase, per cent.	
	Settled area.	Population.		Settled area.	Population.
1790–1800	27.41	35.10	1850–1860	22.01	35.58
1800–1810	33.44	36.38	1860–1870	6.49	22.63
1810–1820	24.70	33.07	.....	.....	.....
1820–1830	24.38	33.55	.....	.....	.....
1830–1840	27.59	32.67	.....	.....	.....
1840–1850	21.30	35.87	.....	.....	.....

This has shown itself in a generally progressive increase of density of population, not merely for the settled area, but for the country as a whole, from decade to decade, as is seen by the following table:

DENSITY OF POPULATION AT EACH CENSUS [2]

(Number of inhabitants per square mile, land surface only, of States and Territories at each census.)

Geographical divisions.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1900.
United States...	4.89	6.61	8.69	4.91	6.35	8.43	7.93	10.84	13.30	17.29	21.31	25.7
North Atlantic [3].	12.14	16.26	21.51	26.88	34.20	41.72	53.23	65.37	75.89	85.92	107.37	129.8
North Central [4].	....	.20	.39	1.14	2.14	4.45	7.17	12 07	17.23	23.04	29.68	34.95
South Atlantic [5].	8.64	10.66	12.48	14.28	13.57	14.61	17.42	19.97	21.79	28.28	32.98	38.88
South Central [6].	.63	1.94	2.30	3.97	5.93	8.69	7.05	10.68	11.91	16.51	18.94	23.07
Western [7].....	.....	.....	.....	.....	.....	.....	.16	.53	.84	1.50	2.58	3.48

Exceptions are to be noted between 1800 and 1810, when the density of population for the whole country was reduced nearly one-half

[1] *Final Report of the Industrial Commission,* vol. xix, pp. 1-5. Washington, Government Printing Office, 1902.

[2] Eleventh Census, Population, I, p. xxxv, and Twelfth Census, Bulletin No. 64, pp. 8-9.

[3] Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.

[4] Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

[5] Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

[6] Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Arkansas, Indian Territory.

[7] Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, California.

through the addition of territory acquired by the Louisiana purchase in 1803; between 1820 and 1830 for the South Atlantic States by the addition of Florida, and between 1840 and 1850 for the South Central States by the addition of Texas and the Mexican territories.

The respective rates of increase of population in the grand divisions, decade after decade, show the rate of progress of the frontier. The table below shows that in the decade 1790-1800 the greatest increase was in the South Central States; in the same decade the North and South Atlantic States show the highest rate of increase reached by them in any decade since the first census, while in the present North Central and Western States there was too small a population to be recorded. Between 1800 and 1810 the country as a whole showed its highest rate of increase, as also did the North Central States, which showed, besides, the highest rate of increase of any of the grand divisions.

For the next four decades the North Central States continued to show the highest rate of increase of any of the grand divisions, at the close of which period, by 1860, the highest rate of increase was shifted to the Western States, where it has since remained. The rate of increase for this division for the last decade (1890-1900), however, although still the largest for any grand division, is so much lower (less than one-half) than that for the preceding decade as to indicate how little new territory has been opened up, while a slight increase in the rates for the South Atlantic and South Central States shows in what directions part of the current formerly running to the West has been diverted.

INCREASE OF POPULATION BY DECADES [1]

Geographical divisions.	1790–1800.	1800–1810.	1810–1820.	1820–1830.	1830–1840.	1840–1850.	1850–1860.	1860–1870.	1870–1880.	1880–1890.	1890–1900.
United States....	35.10	[3] 36.38	33.07	33.55	32.67	35.87	35.58	22.63	30.08	24.86	20.7
North Atlantic...	[3] 33.92	32.29	24.95	27.22	21.99	27.60	22.81	16.09	17.96	19.95	20.9
North Central...	.....	[2,3]474.77	[2]192.99	[2]87.49	[2]108.11	[2]61.23	68.35	42.70	33.76	28.78	17.6
South Atlantic...	[3] 23.47	16.99	14.43	19.11	7.67	19.20	14.65	[4] 9.11	[4]29.79	16.59	17.9
South Central....	[2,3]206.68	134.09	72.89	51.91	46.72	42.24	34.05	11.54	38.62	23.02	24.6
Western.....	.....	.....	.....	.....	.....	.....	[3,]246.15	[2]60.02	[2]78.46	[2]71.27	[2]32.8

Each different degree of density of population has its particular industrial meaning. In this country a population density of 2 to 6 to the square mile indicates a low stage of industrial development in which settled agriculture has not arisen. At this stage the community is supported by the grazing industry, mining, or timber cutting, without any cultivation of the soil. A density of 6 to 18 to the square mile indicates the beginnings of settled agriculture, while a well-devel-

[1] Eleventh Census, Population I, p. xiii, and Twelfth Census, Bulletin No. 64, p. 8.
[2] Highest rate of increase in the decade for any division.
[3] Highest rate of increase in the division for any decade.
[4] Error in enumeration. True rates are, 1860-70, 21.94; 1870-80, 21.96.

oped agriculture is signified by a population density of 18 to 45. The growth of manufacturing and mechanical industries and of trade and transportation tends to bring about greater concentration of population, not only in industrial centers proper, but in the agricultural regions supplying these centers where a population density ranging from 45 to 90 to the square mile, or even higher, may be found.[1]

The growth of the country industrially, then, may be traced in the growth of the various density groups occupying the whole area of settlement, as shown in the following table and chart:

DISTRIBUTION OF DENSITY GROUPS IN SETTLED AREA [2]

Census years.	Total area of settlement, 2 or more to the square mile.	Density of population (excluding cities of 8,000 inhabitants and over).				
		Group 1. 2–6 to the square mile.	Group 2. 6–18 to the square mile.	Group 3. 18–45 to the square mile.	Group 4. 45–90 to the square mile.	Group 5. 90 to the square mile.
1790.....	239,935	83,436	83,346	59,282	13,051	820
1800.....	305,708	81,010	123,267	82,504	17,734	1,193
1810.....	407,945	116,269	154,419	108,155	27,499	1,243
1820.....	508,717	140,827	177,153	150,390	39,004	1,343
1830.....	632,717	150,460	225,894	186,503	65,446	3,414
1840.....	807,292	183,607	291,819	241,587	84,451	5,828
1850.....	979,249	233,697	294,698	338,796	100,794	11,264
1860.....	1,194,754	260,866	353,341	431,601	134,722	14,224
1870.....	1,272,239	245,897	363,475	470,529	174,036	18,302
1880.....	1,569,565	384,820	373,890	554,300	231,410	25,145
1890.....	1,947,280	592,037	393,943	701,845	235,148	24,307

. . . . . .

Taking the groups separately, it is seen that at the first census period practically two-thirds of the settled area, exclusive of the area occupied by cities of 8,000 and over, was occupied by the two showing the lowest grades of density and the least developed conditions of agriculture. From 1800 to 1840 the relative importance of these two groups slowly diminished while the absolute numbers of square miles occupied by them increased rapidly as new territory was opened up decade after decade. From 1850 on, while groups 1 and 2 continued to grow (with the exception of a slight decline of group 1 in 1870) the largest portion of the settled area occupied by any single

[1] This general division is made in the Eleventh Census, Population I, p. xxx.

[2] Eleventh Census, Population I, p. xxxi.

group has been taken up by that showing a density of 18 to 45 to the square mile, thus indicating the greater prevalence in later decades of a more highly developed agriculture.

17.[1] The subjoined table exhibits the population returns of the Eighth Census, and presents a complete view of the number of inhabitants of the United States and Territories in 1860, according to the enumeration then taken in pursuance of the Constitution:

Alabama	964,201	New Jersey	672,035
Arkansas	435,450	New York	3,880,735
California	379,994	North Carolina	992,622
Connecticut	460,147	Ohio	2,339,502
Delaware	112,216	Oregon	52,465
Florida	140,425	Pennsylvania	2,906,115
Georgia	1,057,286	Rhode Island	174,620
Illinois	1,711,951	South Carolina	703,708
Indiana	1,350,428	Tennessee	1,109,801
Iowa	674,948	Texas	604,215
Kansas	107,206	Vermont	315,098
Kentucky	1,155,684	Virginia	1,596,318
Louisiana	708,002	Wisconsin	775,881
Maine	628,279	Colorado Territory	34,277
Maryland	687,049	Dakota Territory	4,837
Massachusetts	1,231,066	Nebraska Territory	28,841
Michigan	749,113	Nevada Territory	6,857
Minnesota	173,855	New Mexico Territory	93,516
Mississippi	791,305	Utah Territory	40,273
Missouri	1,182,012	Washington Territory	11,594
New Hampshire	326,073	District of Columbia	75,080

Though the number of States has increased during the last decennial period from thirty-one to thirty-four, and five new Territories have been organized, the United States has received no accessions of territory within that term, except a narrow strip to the southward of the Colorado river, along the Mexican line, not yet inhabited. As general good health prevailed, and peace reigned throughout the country, there was no apparent cause of disturbance or interruption to the natural progress of population. It is true that the very large immigration from Europe, together with an influx of considerable magnitude from Asia to California, has added largely to the augmentation which the returns show to have taken place during the decade.

In comparing the gain of any class of the population, or of the whole of it, one decade with another, the rate per cent. is not a full test of advancement. The *rate* of gain necessarily diminishes with the density of population, while the absolute increase continues unabated. The actual increase of the entire free and slave population from 1850 to 1860, omitting the Indian tribes, was 8,225,464, and

[1] *Preliminary Report on The Eighth Census, 1860,* pp. 2-5.

the rate per cent. is set down at 35.46; while from 1840 to 1850 the positive increment of all classes was 6,122,423, yet the ratio of gain was 35.87 per cent. The two decades from 1800 to 1810, and from 1840 to 1850, were marked by the great historical facts of the annexation of Louisiana, and the acquisition of Texas, New Mexico, and California. Each of these regions contributed considerably to the population of the country, and we accordingly find that during those terms there was a ratio of increase in the whole body of the people greater by a small fraction than shown by the table annexed for the decade preceding the Eighth Census. The preponderance of gain, however, for that decennial term above all the others since 1790, is signally large. No more striking evidence can be given of the rapid advancement of our country in the first element of national progress than that the increase of its inhabitants during the last ten years is greater by more than 1,000,000 of souls than the whole population in 1810, and nearly as great as the entire number of people in 1820. That the whole of this gain is not from natural increase, but is, in part, derived from the influx of foreigners seeking here homes for themselves and their children, is a fact which may justly enhance rather than detract from the satisfaction wherewith we should regard this augmentation of our numbers.

Thus far in our history no State has declined in population. Vermont has remained nearly stationary, and is saved from a positive loss of inhabitants by only one-third of one per cent. New Hampshire, likewise, has gained but slowly, her increment being only 8,097, or two and one-half per cent. on that of 1850. Maine has made the satisfactory increase of 45,110, or 7.74 per cent. The old agricultural States may be said to be filled up, so far as regards the resources adapted to a rural population in the present condition of agricultural science. The conditions of their increase undergo a change upon the general occupation and allotment of their areas. Manufactures and commerce, then, come in to supply the means of subsistence to an excess of inhabitants beyond what the ordinary cultivation of the soil can sustain. This point in the progress of population has been reached, and, perhaps, passed in most, if not all, of the New England States. But while statistical science may demonstrate within narrow limits the number of persons who may extract a subsistence from each square mile of arable land, it cannot compete with any reasonable approach to certainty the additional population, resident on the same soil, which may obtain its living by the thousand branches of artificial industry which the demands of society and civilization have created. This is forcibly illustrated by the returns relative to the three other New England States—Massachusetts, Rhode Island, and Connecticut —which contain 13,780 square miles. The following table shows their population in 1850 and 1860, and its density at each period.

The aggregate territorial extent of Maine, New Hampshire, and Vermont, is 48,336 square miles; the number of their inhabitants

	1850.		1860.	
	Population.	Number of inhabitants to the square mile.	Population.	Number of inhabitants to the square mile.
Massachusetts.....	994,514	127.49	1,231,066	157.83
Connecticut.....	370,792	79.33	460,147	98.42
Rhode Island.....	147,545	112.97	174,620	133.63
	1,412,851	.....	1,865,833	.....

1,269,450, or 26.26 to the square mile. The stated point of density was passed by the three States named in the table more than fifty years ago, and yet they go on increasing in population with a rapidity as great as at any former period of their history.

South Carolina has gained during the decade 35,201 inhabitants of all conditions, equal to 5.27 per cent. Of this increase 16,825 are whites, and the remainder free colored and slaves. It is perhaps a little remarkable that the relative increase of the free colored class in this State was more considerable than that of any other. As their number, 9,914, is so small as to excite neither apprehension nor jealousy among the white race, the increase is probably due both to manumission and natural causes. This State has made slower progress during the last term than any other in the south, having advanced only from 27.28 to 28.72 inhabitants to the square mile.

Tennessee, it will be observed, has made but the moderate gain of 10.68 per cent. for all classes. Of this aggregate increase the whites have gained at the rate of 9.24 per cent. upon 1850, the free colored 13.67, and slaves 15.14.

The next lowest in the rate of increase in the list of southern States is Virginia, whose gain upon her aggregate population, in 1850, was 174,657, equal to 12.29 per cent. The white class gained 152,611, or 17.06 per cent., the slaves 18,337, or 3.88 per cent.

These are examples of the States wherein the population has advanced with slowest progress the past ten years. Turning now to the States which have made the most rapid advance, we find that New York has increased from 3,097,394 to 3,880,735, exhibiting an augmentation of 783,341 inhabitants, being at the rate of 25.29 per cent. The free colored population has fallen off 64 since 1850, a diminution

to be accounted for probably by the operation of the fugitive slave law, which induced many colored persons to migrate further north.

The gain of Pennsylvania has been in round numbers 595,000. In that State the free colored have increased about 3,000. The greater mildness of the climate and a milder type of the prejudices connected with this class of population, the result of benevolent influences and its proximity to the slaveholding States, may account for the fact that this race holds its own in Pennsylvania, while undergoing a diminution in the State next adjoining on the north.

Minnesota was chiefly unsettled territory at the date of the Seventh Census; its large present population, as shown by the returns, is therefore nearly clear gain.

The vast region of Texas ten years since was comparatively a wilderness. It has now a population of over 600,000, and the rate of its increase is given as 184 per cent.

Illinois presents the most wonderful example of great, continuous, and healthful increase. In 1830 Illinois contained 157,445 inhabitants; in 1840, 476,183; in 1850, 851,470; in 1860, 1,711,951. The gain during the last decade was, therefore, 860,481, or 101.06 per cent. So large a population, more than doubling itself in ten years, by the regular course of settlement and natural increase, is without a parallel. The condition to which Illinois has attained under the progress of the last thirty years is a monument of the blessings of industry, enterprise, peace, and free institutions.

The growth of Indiana in population, though less extraordinary than that of her neighboring State, has been most satisfactory, her gain during the decade having been 362,000, or more than thirty-six per cent. upon her number in 1850.

Michigan, Wisconsin, and Iowa have participated to the full extent in the surprising development of the northwest. The remarkable healthfulness of the climate of that region seems to more than compensate for its rigors, and the fertility of the new soil leads men eagerly to contend with and overcome the harshness of the elements. The energies thus called into action have, in a few years, made the States of the northwest the granary of Europe, and that section of our Union which, within the recollection of living men, was a wilderness, is now the chief source of supply in seasons of scarcity for the suffering millions of another continent.

Looking cursorily over the returns, it appears that the fifteen slaveholding States contain 12,240,000 inhabitants, of whom 8,039,000 are whites, 251,000 free colored persons, and 3,950,000 are slaves. The actual gain of the whole population in those States from 1850 to 1860, was 2,627,000, equal to 27.33 per cent. The slaves advanced in numbers 749,931, or 23.44 per cent. This does not include the slaves of the District of Columbia, who decreased 502 in the course of the ten years. The nineteen free States and seven Territories, together with the federal District, contained, according to the Eighth Census, 19,-

201,546 persons, including 27,749 Indians; of whom 18,936,579 were white, and 237,218 free colored. The increase of both classes was 5,598,603, or 41.24 per cent. No more satisfactory indication of the advancing prosperity of the country could be desired than this general and remarkable progress in population. North and south we find instances of unprecedented gains, as in the case of Illinois, just adverted to. In the southwest the great State of Missouri has increased by the number of 500,000 inhabitants, which is within a fraction of 74 per cent. It is due to candor to state that the marked disproportion between the rate of gain in the north and south respectively, is manifestly to some extent caused by the larger number of immigrants who settle in the former section, on account of congeniality of climate, the variety of occupation, the dignity wherewith respectable employment is invested, and the freedom of labor.

CHAPTER XII

SLAVERY AND THE CIVIL WAR

ALTHOUGH the economic advantages of slave labor were convincingly evident in the early years of the development of rice and tobacco culture in the Southern Colonies, it seemed inevitable that the exhaustion of the soil would sooner or later lead to the elimination of slavery. As long as slavery was economically profitable, ways and means were found to evade the numerous regulations affecting the trade in slaves. Even federal legislation after 1800, while successful in so far as it curbed the growth of slavery through prohibiting importation of negroes from Africa and the West Indies, was unable completely to eliminate the smuggling trade. While slave labor had distinct advantages over free labor in the cultivation of tobacco, rice, and cotton, it was not sufficiently flexible to permit the slaveholding states to rid themselves of the unfavorable economic consequences of over-specialization. That slave labor did not yield returns in proportion to the effort and capital expended as compared with the more diversified economic pursuits of the North is clearly indicated by a comparison of the wealth produced in the North with that of the South. Considered in the light of potential production capacity, the wastefulness of slave labor is quite apparent. Slavery proved to be an effective scourge in so far as the more energetic European immigrant was concerned. While the Northwest was rapidly populated by a vigorous stock of pioneers, the white settlers of the South eked out a miserable existence in competition with slave labor (Nos. 1-8).

Not only humanitarians, but likewise those with sufficient imagination to understand the economic reasons which would have led inevitably to a disappearance of slavery in the United States, early suggested schemes for ridding the country of this institution. Among the proposals made was a somewhat visionary plan for deporting the American negro to Africa, a scheme which found definite expression in the establishment of the Republic of Liberia (Nos. 11-16).

The slow industrial development of the South previous to the Civil War is in itself sufficient evidence of the disadvantage of

slavery and the plantation system. Whatever surplus wealth was created on the plantation was used either to pay for essentials and luxuries imported or was invested in more land and more slaves. Specialization in cotton culture eliminated the possibility of experimentation in other fields of endeavor. This condition both strengthened and weakened the economic organization of the South. As the experience following the Civil War amply showed, there was no possibility of maintaining the plantation system without slave labor. That eventually both would have disappeared without a sanguinary civil war is more than likely (Nos. 17-21).

The Civil War brought to the surface both the strength and the weakness of the economic structure of the United States. Owing to greater industrialization, an adjustment of economic activities to meet the exigencies of warfare involved fewer difficulties in the North than in the South, where for decades prosperity and depression had depended upon the size of the cotton crop and the conditions under which it could be disposed of at home and in foreign markets. The constantly decreasing labor supply resulting from the drafting of men into the armies would have had far more disastrous effects upon the output of agricultural products and of manufactures had it not been for the extensive introduction of machinery, especially in farming. Mowing, reaping, and threshing machines which for several decades had contributed in no small measure to the development of Western agriculture, practically eliminated the effects of the shortage of agricultural laborers in the North (Nos. 22-25).

A problem just as serious as that of providing the armies with necessary supplies and involving as many difficulties was that of increasing the revenue of the federal government for defraying the expenses of the war. These expenditures were met by the issuance of paper money (United States notes), by the sale of bonds, and by taxation. During the early years of the war little effort was made to devise ways and means of increasing the tax burden, and the sale of government bonds yielded but little. The issuance of paper money, therefore, became necessary (Nos. 26-31; 35-36).

The national banking system was introduced in 1863 with two principal objects in view: the sale of government bonds and the introduction of a reasonably uniform and stable currency (Nos. 32-34). Under the terms of the National Banking Act government-chartered institutions were authorized to issue notes secured by bonds of the federal government. Since hundreds of state banks were still engaged in the profitable business of issuing paper money, there was some reluctance on their part to join the system. To

overcome this obstacle and to eliminate a form of currency which for many decades had done a great deal of harm, a tax of ten per cent. was imposed in 1865 upon all state bank-note issues. Their disappearance followed shortly.

In the years of reconstruction after the Civil War the United States faced one of the most critical periods in its history. The elimination of slavery seriously wrenched the economic organization of the entire South. Emancipation meant the destruction of the plantation system; besides, it deprived the former slaveholder of a large part of his wealth. The rebuilding of the economic structure of the South, therefore, involved sweeping changes which could be accomplished only after many years of effort. In the meantime the industrial growth of the North proceeded rapidly. The completion of the first transcontinental railway (1869) and a new liberal land policy inaugurated with the passage of the Homestead Act signalized the advent of an era of unprecedented economic activity. The per capita wealth of the nation increased rapidly; economic opportunities seemed unlimited. The potentialities of modern industrialism were at last to become a reality (Nos. 37-42).

Extent and Distribution of Slave Labor

1.[1] At the period of the first census of the United States, in 1790, we find that slavery existed in all of the states and western territories, except Massachusetts and Maine, which were at that period united. In Massachusetts, however, exist various early laws in regard to slavery. In 1691, the general court decreed, "that there shall never be any bond-slavery, &c., among us, *unless it be lawful captives taken in just wars, or such as willingly sell themselves, or are sold to us, &c., provided this exempt none from servitude who shall be judged thereto by authority.*"

In 1703, a duty of £4 was laid upon every negro imported into Massachusetts. The same year, we find a law of the general court, relating to mulatto and negro slaves, *prohibiting their manumission*, without previous security that they should not afterward be at the charge of the colony, and all other manumission to be void. In 1735, the number of blacks were 2,000; whole population, about 50,000. In 1763, the blacks were 5,000; whites, 240,000. What portion were slaves we are unable to say, though it was judicially declared, after the revolution, in Massachusetts, that slavery was virtually abolished by the constitution of the state.

The census of 1790 showed 697,697 slaves in the United States, or nearly 17.76 per cent. of the whole population. The free colored were 59,466, or 1½ per cent.; the free negro and slave population together,

[1] De Bow, J. D. B., *The Industrial Resources, etc., of the Southern and Western States*, vol. ii, pp. 304-305. New Orleans, 1853. See note p. 110.

being about one fifth of the whole. In those states where slavery has been subsequently retained, the proportion was, of course, largest, being about 35 per cent., or one third. In South Carolina, the proportion of slaves was most considerable of all, being 43 per cent., or nearly one half; in Tennessee the proportion was least, being 9.6 per cent., or one tenth. The proportion of *free blacks* was largest in Rhode Island, 3,407, or one twenty-third, and in Delaware, one fifteenth. In Massachusetts and Pennsylvania, they were one seventy-fifth, and in Maryland, one fortieth of the whole population. Virginia had 1.70 per cent., South Carolina, .07 per cent., of *free blacks*.

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The census of 1820 showed 1,543,688 slaves, and 238,197 free colored, an increase in the slaves of 29.57, being nearly 2 per cent. more than the increase of the ten years ending 1800. The whole colored increase was 29.33 per cent. against 37.58; free colored, 27.75 against 72 per cent. The white population gained 1 per cent. on colored, the same on slaves; the free colored gained one tenth of 1 per cent. The falling away of the increase of slaves was owing to many elopements of this class during the war, &c. In the slave states the free colored had remained stationary, and the slaves had gained nearly 1 per cent.; the whole colored had gained on the whites ½ per cent., nearly. The increase of blacks in New-England was still about 7 per cent.; at the south, 30 per cent. The proportion of blacks in South Carolina remains highest, 51.4, having gained 4 per cent. In Louisiana, 45 per cent.; Georgia and Mississippi, 43 per cent. The free blacks to whole population have declined in Louisiana, Missouri, and Georgia, an average of near 2 per cent., but increased in all the other slave states except Delaware; in no instance, however, more than 1½ per cent., and in some instances, a mere fraction.

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By the census of 1840, it appeared there were 2,487,350 slaves, and 386,348 free colored persons in the United States, an increase in slaves, in ten years, of 23.81; of free colored, 20.88; a decline in the increase of this population of 13.97 and 6.94 per cent. Professor Tucker argues a very great error somewhere. Though free blacks have emigrated to British provinces, and slaves have been carried to Texas, the numbers were not sufficient to affect, in any degree, the result. The whites have hence gained largely upon the colored, supposing the returns correct, and the free colored have diminished in their ratio of increase. The latter have declined, in proportion, in the slave states, as also have the slaves; the last, in extent, more than one half per cent. The proportion of slaves has increased in South Carolina, and is still largest. In Mississippi it is fifty-two per cent.; in Louisiana it appears to have lost two per cent., being now less than half. In the southern states, the free blacks have ceased to increase with the same ratio; the proportion in Louisiana remains largest, being seven per cent. of the whole population. Virginia comes next. The blacks of New-England

increased six per cent. in ten years; those of the slave states, twenty-six per cent.! By this census it appears that every state returned slaves, except Maine, Vermont, Massachusetts and Michigan. By the last census, Massachusetts and Vermont only were excepted.

2.[1] The remarkable fact . . . is the increase of free blacks at the South, where they choose to remain, notwithstanding all the blandishments of the North. The increase of that class in Maryland, Delaware, and Virginia, is worthy of observation. In Delaware the black population may be said to be all free. In Maryland they were 8 per cent. of the slaves in 1790, and have since gained at each census, until they are 80 per cent. in 1850. They do not migrate, and this fact is characteristic of the race. Being without energy they dislike any exertion, even the requisite daily employment, far more so migration to better their condition. If we compare the aggregate progress of the blacks in the three sections, the result is as follows:

BLACKS IN THE UNITED STATES

	North.	West.	South	
			Free.	Slave.
1790	66,080	.....	32,635	657,047
1800	82,800	500	61,241	857,095
1810	103,237	3,454	108,265	1,163,854
1820	113,961	8,040	135,304	1,524,580
1830	125,213	15,891	182,078	2,005,475
1840	144,321	29,523	215,568	2,486,226
1850	150,142	46,852	238,737	3,204,051

The Northern black population progresses at a very slow pace, notwithstanding the aid it acquires by migration. The free blacks at the South, on the other hand, increase rapidly, notwithstanding some loss by migration. Nevertheless, the aggregate increase at the North is far less than the natural increase of the whites. If the black race have been petted anywhere on the face of the earth, it has been in Massachusetts, Rhode Island, and Connecticut. Yet the fact shows that in 1820 there were in those States 18,559 blacks. 30 years after, in 1850, there were 20,427, an increase of less than 10 per cent. in 30 years. In Massachusetts alone there were, in 1800, 6,452 blacks; in 1850 these had increased to 9,060—of these only 5,699 were born in the State, 3,361 having come from other States, and thus the native blacks in 50 years declined 752 in actual numbers.

It is no doubt the fact that the Northern climate is too rigorous for the black nature, and that they do not increase for that among other reasons, but the great fact is, that no matter how high negro worship may run at the North, and how much soever the people of Massachusetts are disposed to educate, patronize, equalize, and evan-

[1] Kettell, Thomas P., *Southern Wealth and Northern Profits*, pp. 121-122. New York, 1860. See note p. 208.

gelize the black race, they still inexorably require industry from him as one of the virtues. That, however, in the view of the black, counteracts all else that can be done for him. To live in Massachusetts not only is industry required, but a good deal of it, added to foresight and prudence, three qualities entirely foreign to the black nature. After all they have done for the black race, the New England philanthropy can get only a very scant supply of house-servants out of it. The fact of the small increase of blacks in a region where so many advantages are held out to him, contrasts strongly with his rapid increase in sections where his white friends allege he suffers great hardships.

Economic Basis of Slave Labor

3.[1] . . . Slavery, as a permanent system, has need not merely of a fertile soil, but of a practically unlimited extent of it. This arises from the defect of slave labour in point of versatility. As has been already remarked, the difficulty of teaching the slave anything is so great—the result of the compulsory ignorance in which he is kept, combined with want of intelligent interest in his work—that the only chance of rendering his labour profitable is, when he has once learned a lesson, to keep him to that lesson for life. Accordingly where agricultural operations are carried on by slaves the business of each gang is always restricted to the raising of a single product. Whatever crop be best suited to the character of the soil and the nature of slave industry, whether cotton, tobacco, sugar, or rice, that crop is cultivated, and that crop only. Rotation of crops is thus precluded by the conditions of the case. The soil is tasked again and again to yield the same product, and the inevitable result follows. After a short series of years its fertility is completely exhausted, the planter abandons the ground which he has rendered worthless, and passes on to seek in new soils for that fertility under which alone the agencies at his disposal can be profitably employed. The practical results of the system are thus described by a native of the South:—"I can show you with sorrow, in the older portions of Alabama, and in my native county of Madison, the sad memorials of the artless and exhausting culture of cotton. Our small planters, after taking the cream off their lands, unable to restore them by rest, manures, or otherwise, are going further west and south in search of other virgin lands, which they may and will despoil and impoverish in like manner. Our wealthier planters, with greater means and no more skill, are buying out their poorer neighbours, extending their plantations, and adding to their slave force. The wealthy few, who are able to live on smaller profits, and to give their blasted fields some rest, are thus pushing off the many,

[1] Cairnes, J. E., *The Slave Power: Its Character, Career and Probable Designs*, pp. 44-46. London, 1862.

Editor's Note.—As Professor of Political Economy in University College, London, J. E. Cairnes (1823-1875) distinguished himself as one of the leading English economists of the last century. His observations are those of a scholar.

who are merely independent. . . . In traversing that county one will discover numerous farm-houses, once the abode of industrious and intelligent freemen, now occupied by slaves, or tenantless, deserted, and dilapidated; he will observe fields, once fertile, now unfenced, abandoned, and covered with those evil harbingers—foxtail and broomsedge; he will see the moss growing on the mouldering walls of once thrifty villages; and will find 'one only master grasps the whole domain' that once furnished happy homes for a dozen families. Indeed, a country in its infancy, where, fifty years ago, scarce a forest tree had been felled by the axe of the pioneer, is already exhibiting the painful signs of senility and decay apparent in Virginia and the Carolinas; the freshness of its agricultural glory is gone, the vigour of its youth is extinct, and the spirit of desolation seems brooding over it." Even in Texas, before it had yet been ten years under the dominion of this devastating system, Mr. Olmsted tells us that the spectacle so familiar and so melancholy in all the older Slave States was already not unfrequently seen by the traveller—"an abandoned plantation of 'worn-out' fields with its little village of dwellings, now a home only for wolves and vultures."

Slave cultivation, therefore, precluding the conditions of rotation of crops or skilful management, tends inevitably to exhaust the land of a country, and consequently requires for its permanent success not merely a fertile soil but a practically unlimited extent of it.

4.[1] Slavery, therefore, excluded by these causes from the field of manufactures and commerce, finds its natural career in agriculture; and, from what has been already established respecting the peculiar qualities of slave labour, we may easily divine the form which agricultural industry will assume under a servile *régime*. The single merit of slave labour as an industrial instrument consists, as we have seen, in its capacity for organization—its susceptibility, that is to say, of being adjusted with precision to the kind of work to be done, and of being directed on a comprehensive plan towards some distinctly conceived end. Now to give scope to this quality, the scale on which industry is carried on must be extensive, and, to carry on industry on an extensive scale, large capitals are required. Large capitalists will therefore have, in slave communities, a special and peculiar advantage over small capitalists beyond that which they enjoy in countries where labour is free. But there is another circumstance which renders a considerable capital still more an indispensable condition to the successful conduct of industrial operations in slave countries. A capitalist who employs free labour needs for the support of his labour force a sum sufficient to cover the amount of their wages during the interval which elapses from the commencement of their operations until the sale of the produce which results from them. But the capitalist employing slave labour requires not merely this sum—represented in his case by

[1] *Ibid.*, pp. 50-51.

the food, clothing, and shelter provided for his slaves during the corresponding period—but, in addition to this, a sum sufficient to purchase the fee-simple of his entire slave force. For the conduct of a given business, therefore, it is obvious that the employer of slave labour will require a much larger capital than the employer of free labour. The capital of the one will represent merely the current outlay; while the capital of the other will represent, in addition to this, the future capabilities of the productive instrument. The one will represent the interest, the other the principal and interest, of the labour employed. . . .

Social Stratification in the South

5.[1] The slaveholders buy up all the fertile lands to be cultivated by their slaves; hence the poor are crowded out, and if they remain in the vicinity of the place of their nativity, they must occupy the poor tracts whose sterility does not excite the cupidity of their rich neighbours. The slaveholders' motto is, "Let us buy more negroes to raise more cotton, to buy more negroes," and so on *ad infinitum*. To raise more cotton they must also buy more land. Small farmers are induced to sell out to them, and move further west. For this reason, the white population of the fertile sections of the older slave States is constantly on the decrease, while the slave population is as constantly increasing. Thus the slaveholder often acquires many square miles of land, and hundreds of human chattels. He is, as it were, set alone in the earth. Priding himself upon his wealth, he will not send his princely sons to the same school with the poor white trash; he either sends them to some distant college or seminary, or employs a private teacher exclusively for his children. The poor whites in the neighbourhood, even should they desire to educate their children, have no means to pay for their tuition. Compelled to live on poor or worn-out lands, honest toil considered degrading, and forced to submit to many inconveniences and disabilities (all the offices of honour and profit being monopolized by the slaveholders,) through the workings of the "peculiar institution," they find it utterly impossible to educate their offspring, even in the rudiments of their mother tongue. As the power of slavery increases, their condition waxes worse and worse.

The slaveocracy becomes more exacting. Laws are passed by the legislature compelling non-slaveholders to patrol the country nightly, to prevent insurrections by the negroes. They denounce the law, but coercion is resorted to, and the poor whites are forced to obey. When their masters call for them, they must leave their labour, by day or by night, patrol the country, follow the bloodhounds, arrest the fugitive slave, and do all other dirty work which their tyrants demand.

[1] Aughey, John H., *The Iron Furnace,* pp. 226-232. Philadelphia, 1863.

Editor's Note.—The Rev. John H. Aughey, who was born in 1828, wrote as a sequel to *The Iron Furnace: or Slavery and Secession* a volume entitled *Tupelo,* which made its appearance in 1888. Although emphatic in expressing his opinions, Aughey's observations are historically accurate.

If they refuse to obey, they are denounced as abolitionists, and are in danger of death at the hands of Judge Lynch, the mildest punishment they can hope for being a coat of tar and feathers.

The house-negroes feel themselves several degrees above the poor whites, as they, from their opportunities for observation amongst the higher classes, are possessed of greater information and less rusticity than this less favoured class. The poor whites have no love for the institution of slavery. They regard it as the instrument of inflicting upon them many wrongs, and depriving them of many rights. They dare not express their sentiments to the slaveholders, who hold them completely under their power. A. G. Brown, United States Senator from Mississippi, to reconcile the poor whites to the peculiar institution, used the following arguments in a speech at Iuka Springs, Mississippi. He stated, that if the slaves were liberated, and suffered to remain in the country, the rich would have money to enable them to go to some other clime, and that the poor whites would be compelled to remain amongst the negroes, who would steal their property, and destroy their lives; and if slavery were abolished, and the negroes removed and colonized, the rich would take the poor whites for slaves, in their stead, and reduce them to the condition of the Irish and Dutch in the North, whose condition he represented to be one of cruel bondage. These statements had some effect upon his auditors, who believed, from sad experience, that the rich could oppress the poor as they chose, and might, in the contingency specified, reduce them to slavery. Labour is considered as degrading, that any argument, based upon making labour compulsory on their part, has its weight. Even the beggar despises work. A sturdy beggar asked alms at a house at which I was lodging. As he appeared to be a man of great physical strength, he was advised to go to work, and thus provide for his wants. "Work!" said he, in disgust; "niggers do the work in this country"—and retired highly insulted.

The people form a distinct class, distinguished by as many characteristics from the middle and higher classes of Southern society, as the Jews are from the nations amongst whom they sojourn. The causes which brought about their reduction to their present state of semi-barbarism, must be removed, ere they can rise to the condition whence they have fallen. They must rise upon the ruins of slavery. When the peculiar institution is abolished, then, and not till then, will their disabilities be removed, and they be in reality what they are nominally—freemen.

Slaveholders and their families form a distinct class, characterized by idleness, vanity, licentiousness, profanity, dissipation, and tyranny. There are glorious exceptions, it is true, but those are the distinguishing traits of the class. The middle class is the virtuous class of the South. They are industrious, frugal, hospitable, simple in their habits, plain and unostentatious in their manners. Some of this class are small slaveholders, but the great majority own none. The gross vices

of the higher class are not found among them. They labour regardless of the sneers of their aristocratic neighbours. Senator Hammond, of South Carolina, may call them mudsills; they regard it not, but pursue the even tenor of their way. The slow, unmoving finger of scorn may be pointed at them by the sons of pride, yet they refuse to eat the bread of idleness, and labour with their *own hands*, that they may provide things honest in the sight of all men. Equidistant from poverty and riches, they enjoy the golden mean, and immunity from the temptations incident to the extremes of abject poverty and great riches.

The Domestic Slave Trade

6.[1] A southern physician described to me a scene in the domestic slave trade. He touched at a landing-place in a steamer, and immediately a slave coffle was marched on board. Men, women, and children, about forty in all, two by two, an ox chain passing through the double file, and a fastening reaching from the right and left hands of those on either side of the chain, composed what is called a *slave coffle*. Some colored people were on the wharf, who seemed to be relatives and friends of the gang. Such shrieks, such unearthly noises, as resounded above the escape of steam, my informant said can not be described. There were partings for life, and between what degrees of kindred the nature of the cries were probably a sign.

When the boat was on her way, my informant fell into conversation with a distinguished planter, with regard to the scene which they had just witnessed. They deplored it as one of the features of a system which they both mourned over, and wished to abolish, or at least correct, till no wrong, no pain, should be the fruit of it which is not incidental to every human lot.

While they were discussing the subject, the slave-dealer heard their talk, came up, and made advances to shake hands with the planter. The gentleman drew back, and said, "Sir, I consider you a disgrace to human nature." He poured scorn and indignation upon him.

He spoke the feelings of the south generally. Negro traders are the abhorrence of all flesh. Even their descendants, when they are known, and the property acquired in the traffic, have a blot upon them. I never knew a deeper aversion to any class of men; it is safe to say, that generally it is not surpassed by our feelings toward foreign slave traders.

They go into the States where the trade is not prohibited by law, find men who are in want of money, or a master who has a slave that is troublesome, and for the peace of the plantation that slave is sold,

[1] Adams, Nehemiah, *A South-Side View of Slavery* (ed. 4), pp. 77-81. Boston, 1860.

Editor's Note.—Nehemiah Adams (1806-1878) was an American clergyman in Boston and an author of note. The anti-slavery press was distinctly antagonistic toward his views.

sometimes at great sacrifice; and there are many of whom, under pecuniary pressure, it is not always difficult to purchase.

There are some men whose diabolical natures are gratified by this traffic—passionate, cruel, tyrannical men, seeking dominion in some form to gratify these instincts. The personal examinations which they make, and the written descriptions which they give, of slaves whom they buy, are sometimes disgusting in the extreme. It is beyond explanation that good men at the south do not clamor against this thing, till the transfer of every human being, if he must be a slave, is made with all the care attending the probate of a will.

The charge of vilely multiplying negroes in Virginia, is one of those exaggerations of which this subject is full, and is reduced to this—that Virginia, being an old State, fully stocked, the surplus black population naturally flows off where their numbers are less.

I heard this conversation at the breakfast house of a southern railroad. As several of us were warming ourselves at the fire, one of the passengers said to the keeper of the house,—

"Where is Alonzo now?"

"He is in Alabama."

"I thought he had come back."

"Well, he was to come back some time ago; but they keep sending him so many negroes to sell, he can't leave."

Alonzo is probably a negro trader of the better sort; a mere agent or factor. If slaves are to be sold, there must be men to negotiate with regard to them; these are not all of the vilest sort; yet their occupation is abhorred.

The separation of families seems to be an inevitable feature of slavery, as it exists at present. If a man is rich and benevolent, he will provide for his servants, and tax himself to support them, let their number be never so great, buying one plantation after another, chiefly to employ his people. But the time will come when he must die, and his people are deprived of his protection. No one child, perhaps, can afford to keep them together; perhaps he has no children; then they must take their chance of separations to the widest borders of the slave States. But here individual kindness mitigates sorrow and distress. The owner of several plantations at the south, with no children, has made his slaves his heirs, on condition that they remove to Liberia.

It seems to be taken for granted that to be sold is inevitably to pass from a good to an inferior condition. This is as much a mistake as it would be to assert the same of changes on the part of domestic servants in the free States. There are as good masters as those whose death makes it necessary to scatter the slaves of an estate. The change itself is not necessarily an evil.

We must remember that slaves are not the only inhabitants, nor slave families the only families, in the land, that are scattered by the death of others. Sometimes the demand seems to be that slaves should be kept together at all events, and separations never be permitted. This

is absurd, upon the least reflection. No one ought to demand or expect for them an experience better or worse than the common lot of men. Let the slaves share with us in the common blessings and calamities of divine providence. What would become of our families of five or ten children should their parents die? Can we keep our children about us always? Do none but black children go to the ends of the Union and become settled there? How many white people there are that do this, who—deplorable truth!—cannot read and write, and seldom if ever hear of their relatives from whom they are separated. Let us not require too much of slavery. Let us not insist that the slaves shall never be separated, nor their families broken up; but let it be done as in the course of nature every where, with no more pain, nor pain of any other kind, than must accrue to those who depend upon their own efforts for a living.

Facts connected with this part of the subject have given me deep respect and sympathy for those slaveholders who, from the number of instances which have come to my knowledge, it is evident are by no means few, that suffer hardship and loss in their efforts to keep the members of their slave families together. Our knowledge of distressing cases, and the indisputable truth that slavery gives the power of disposal to the owner at his will, no doubt leads us to exaggerate the number of cases in which suffering is unjustly inflicted. While we are sure to hear of distressing cruelties, ten thousand acts of kindness are not mentioned. These can not compensate, however, for the liability to abuse which there is in authority almost absolute; but let us discriminate when we bring charges against a whole community, and let us consider how far the evils complained of are inseparable, not only from a system which is felt to be a burden, but also from human nature in every condition.

As was remarked with regard to sales by auction, it is vain to expect that painful separations of families in a wanton manner, or by stress of circumstances, can wholly cease, in the present system. It is indeed a burdensome system, destroying itself by its own weight, unless relieved by some of those unnatural and violent expedients. It is deplored for this and other reasons by multitudes at the south, whose voices we shall hear as soon as our relations as north and south are such as will allow them to speak. In the mean time, public sentiment is fast correcting abuses under the system; and not only so, but through its influence and the power of Christian love, the condition of families and individuals among the slaves is becoming here and there as free from evil as human nature permits in a dependent condition.

Advantages and Disadvantages of Slave Labor

7.[1] The economic advantages of slavery are easily stated: they are all comprised in the fact that the employer of slaves has absolute power

[1] Cairnes, J. E., *The Slave Power: Its Character, Career, and Probable Designs*, pp. 38-40. London, 1862. See note p. 418.

over his workmen, and enjoys the disposal of the whole fruit of their labours. Slave labour, therefore, admits of the most complete organization, that is to say, it may be combined on an extensive scale, and directed by a controlling mind to a single end, and its cost can never rise above that which is necessary to maintain the slave in health and strength.

On the other hand, the economical defects of slave labour are very serious. They may be summed up under the three following heads:—it is given reluctantly; it is unskilful; it is wanting in versatility.

It is given reluctantly, and consequently the industry of the slave can only be depended on so long as he is watched. The moment the master's eye is withdrawn, the slave relaxes his efforts. The cost of slave labour will therefore, in great measure, depend on the degree in which the work to be performed admits of the workmen being employed in close proximity to each other. If the work be such that a large gang can be employed with efficiency within a small space, and be thus brought under the eye of a single overseer, the expense of superintendence will be slight; if, on the other hand, the nature of the work requires that the workmen should be dispersed over an extended area, the number of overseers, and therefore, the cost of the labour which requires this supervision, will be proportionately increased. The cost of slave-labour thus varies directly with the degree in which the work to be done requires dispersion of the labourers, and inversely as it admits of their concentration. Further, the work being performed reluctantly, fear is substituted for hope, as the stimulus to exertion. But fear is ill calculated to draw from a labourer all the industry of which he is capable. "Fear," says Bentham, "leads the labourer to hide his powers, rather than to show them; to remain below, rather than to surpass himself." . . . "By displaying superior capacity, the slave would only raise the measure of his ordinary duties; by a work of supererogation he would only prepare punishment for himself." He therefore seeks, by concealing his powers, to reduce to the lowest the standard of requisition. "His ambition is the reverse of that of the freeman; he seeks to descend in the scale of industry, rather than to ascend."

Secondly, slave labour is unskilful, and this, not only because the slave, having no interest in his work, has no inducement to exert his higher faculties, but because, from the ignorance to which he is of necessity condemned, he is incapable of doing so. In the Slave States of North America, the education of slaves, even in the most rudimentary form, is proscribed by law, and consequently their intelligence is kept uniformly and constantly at the very lowest point. "You can make a nigger work," said an interlocutor in one of Mr. Olmsted's dialogues, "but you cannot make him think." He is therefore unsuited for all branches of industry which require the slightest care, forethought, or dexterity. He cannot be made to co-operate with machinery; he can

only be trusted with the coarsest implements; he is incapable of all but the rudest forms of labour.

But further, slave labour is eminently defective in point of versatility. The difficulty of teaching the slave anything is so great, that the only chance of turning his labour to profit is, when he has once learned a lesson, to keep him to that lesson for life. Where slaves, therefore, are employed there can be no variety of production. If tobacco be cultivated, tobacco becomes the sole staple, and tobacco is produced whatever be the state of the market, and whatever be the condition of the soil. This peculiarity of slave labour, as we shall see, involves some very important consequences.

8.[1] There are evils pertaining to slavery of which none are so well aware as those who are subjected to them; and therefore the free and candid declaration of the people at the south upon this part of the subject is far more convincing and satisfactory than our theoretical reasonings.

They complain of the injurious effect of slave labor upon the soil, there being no motives with the slave to improve or preserve it; but this is too obvious a topic to require a single remark.

Labor performed wholly by menial persons becomes disreputable in the eyes of children. Those who can afford to educate their children to live in affluence are not oppressed by this evil as others are whose children eschew trades and every thing requiring manual labor, and, irrespective of talent, must resort to the army and navy and the learned professions for a living. Society is happier where a portion of its own talent and enterprise is employed in the mechanic arts. It is the providential arrangement that invention shall be the offspring of labor, they who work being those ordinarily who confer upon the world the fruits of genius. Slaves invent little or nothing. The healthful stimulus of necessity finds few heads or hands at the south among the laboring class, almost every thing necessary to quicken and help labor being imported. It is a serious evil which parents in slave States feel, that they do not enjoy the privilege of employing the talents and aiding the constitutions of some of their children by addicting them at home to the useful arts, which abound where labor is honorable and is rewarded. Temptations to vice, and the mischiefs of an aimless, idle life, are the source of great solicitude and pain to many southern parents with regard to their sons.

We greatly err when we make this an occasion for reproach. There is a way of taunting the south with this and other inseparable inconveniences and evils of their state of society which is unkind. Their reply might well be, "God has given us 'a south land,' as Caleb gave to his daughter. O that he could give us also, as she requested, 'springs of water.' Sources of refreshment and comfort which you at the north enjoy are, some of them, withheld from us."

[1] Adams, Nehemiah, *A South-Side View of Slavery* (ed. 4), pp. 89-91. Boston, 1860. See note p. 422.

Were it not for the din and clamor of northern invectives against slavery, we should hear more distinctly the candid expressions of our southern friends with regard to evils in the system.

They tell us—and indeed every one sees it—that slave labor is in many cases oppressively expensive, and the more so in proportion to the conscientiousness and kindness of the owners. It takes more hands to do the same amount of work than with us; the servants are hearty, and great consumers, frequently costing more for their food than the rest of the family; and some of them could be dispensed with, but they came into the family in ways, perhaps, which make their owners unwilling to put them away. This is an evil in slavery of which we at the north have very little idea, and it does much to disabuse a spectator of wrong impressions made by his associations with the word *slavery* and *slave*. One case out of many in every southern town may be mentioned, of a matron, a widow, who, during her husband's life, was in easy circumstances; but he having left her with some colored women and their children, she receives boarders that she may have means to support these blacks, being unwilling to sell them, but expecting the time when she can place them in advantageous situations. She would pass at the north under the name of "slaveholder," with all the peculiar associations with that name in the minds of many. It was affecting to hear her say, "If our friends at the north would devise ways in which we could dispose of these poor people for their good, I should then no longer be a servant of servants."

There are, probably, few who would not abstractly prefer free labor; but what shall be done with the blacks? There has never been a time in the history of our discussions on this subject, when, if the south had expressed her willingness to part with the slaves, we at the north could have agreed in what way they should have been disposed of. Who has ever proposed a plan of relief which could in a good measure unite us? What shall be done with the blacks? On the evils of slavery all are well informed. But as to this essential question we get no light.

Early Efforts to Regulate the Extension of Slavery

9.[1] Woolman and Benezet had in vain employed all their efforts to effect the abolition of this traffic under the English government. The mistaken interest of the mother country caused all the petitions to be rejected in the year 1772; yet the minds of men were prepared in some of the colonies; and scarcely was independence declared, when a general cry arose against this commerce. It appeared absurd for men defending their own liberty, to deny liberty to others. A pamphlet was printed, in which the principles on which slavery is founded, were held up in contrast with those which laid the foundation of the new constitution.

This palpable method of stating the subject, was attended with a

[1] Brissot de Warville, J. P., *New Travels in the United States of America. Performed in 1788,* p. 269. Dublin, 1792. See note p. 149.

happy success; and the Congress, in 1774, declared the slavery of the Blacks to be incompatible with the basis of republican governments. Different legislatures hastened to consecrate this principle of Congress.

10.[1] At the time of the adoption of the Constitution, and long afterwards, there was, generally speaking, no sectional difference of opinion between North and South, on the subject of slavery. It was in both parts of the country regarded, in the established formula of the day, as "a social, political, and moral evil." The general feeling in favor of universal liberty and the rights of man, wrought into fervor in the progress of the Revolution, naturally strengthened the anti-slavery sentiment throughout the Union. *It is the South which has since changed, not the North.* The theory of a change in the Northern mind, growing out of a discovery made *soon after* 1789, that our soil and climate were unpropitious to slavery (as if the soil and climate then were different from what they had always been), and a consequent sale to the South of the slaves of the North, is purely mythical,—as groundless in fact as it is absurd in statement. I have often asked for the evidence of this last allegation, and I have never found an individual who attempted even to prove it. But however this may be, the South at that time regarded slavery as an evil, though a necessary one, and habitually spoke of it in that light. Its continued existence was supposed to depend on keeping up the African slave-trade; and South as well as North, Virginia as well as Massachusetts, passed laws to prohibit that traffic: they were, however, before the Revolution, vetoed by the Royal Governors. One of the first acts of the Continental Congress, unanimously subscribed by its members, was an agreement neither to import, nor purchase any slave imported, after the first of December, 1774. In the Declaration of Independence, as originally draughted by Mr. Jefferson, both slavery and the slave-trade were denounced in the most uncompromising language. In 1777, the traffic was forbidden in Virginia, by State law, no longer subject to the veto of Royal Governors. In 1784, an ordinance was reported by Mr. Jefferson to the old Congress, providing that after 1800 there should be no slavery in any Territory ceded or to be ceded to the United States. The ordinance failed at that time to be enacted; but the same prohibition formed a part, by general consent, of the ordinance of 1787 for the organization of the North-western Territory. In his "Notes on Virginia," published in that year, Mr. Jefferson depicted the evils of slavery in terms of fearful import. In the same year, the Constitution was framed. It recognized the existence of slavery; but the word was carefully excluded from the instrument, and Congress

[1] Livermore, George, *An Historical Research Respecting the Opinions of the Founders of the Republic of Negroes as Slaves, as Citizens, and as Soldiers,* pp. 16-18. Boston, 1862.

Editor's Note.—George Livermore (1809-1865) is today better known as an antiquarian and author, than as a successful commission merchant of Boston. His works on the whole are reliable and interestingly written.

was authorized to abolish the traffic in twenty years. In 1796, Mr. St. George Tucker, law-professor in William and Mary College, in Virginia, published a treatise entitled "A Dissertation on Slavery, with a Proposal for the Gradual Abolition of it in the State of Virginia." In the preface to the essay, he speaks of the "abolition of slavery in this State as an object of the first importance, not only to our moral character and domestic peace, but even to our political salvation." In 1797, Mr. Pinkney, in the Legislature of Maryland, maintained, that, "by the eternal principles of justice, no man in the State has a right to hold his slave a single hour." In 1803, Mr. John Randolph, from a committee on the subject, reported that the prohibition of slavery by the ordinance of 1787 was "a measure wisely calculated to promote the happiness and prosperity of the North-western States, and to give strength and security to that extensive frontier." Under Mr. Jefferson, the importation of slaves into the territories of Mississippi and Louisiana was prohibited in advance of the time limited by the Constitution for the interdiction of the slave-trade. When the Missouri restriction was enacted, all the members of Mr. Monroe's Cabinet—Mr. Crawford of Georgia, Mr. Calhoun of South Carolina, and Mr. Wirt of Virginia—concurred with Mr. Monroe in affirming its constitutionality. In 1832, after the Southampton massacre, the evils of slavery were exposed in the Legislature of Virginia, and the expediency of its gradual abolition maintained, in terms as decided as were ever employed by the most uncompromising agitator. . . .

Efforts to Emancipate the Slave

11.[1] . . . [A]ny person who has an opportunity of observing personally the effects of the existence of this dreadful evil [slavery] must, I think, allow that a sudden and unprepared emancipation would probably be productive, in the first instance at least, of evils a thousandfold greater to all the parties concerned than even its unmitigated continuance. It is not one of the least lamentable effects of slavery, that it is apt to unfit both the oppressor and the victim for a different state of things; and as a question of interest, it may be regarded as an alternative of wealth and power, or complete ruin to the slave-holders in many cases. Can we be surprised at the obstacles that are opposed to any general abolition of this (almost universally) allowed evil, by those states of America whose culture and existence seem at present to depend on it? Let us turn from what must unfortunately be regarded for the present as a necessary evil, admitting of no *immediate* remedy that human prudence can adopt, to consider the admirable and practicable mode in which the existence of slavery has been done away with in the northern, eastern, and other considerable states in the union—in a word, in its most rapidly improving sections. By enacting the prospective emancipation of certain slaves at fixed periods, and the

[1] Ouseley, William, *Remarks on the Statistics and Political Institutions of the United States,* pp. 180-184. Philadelphia, 1832. See note p. 145.

birthright of liberty to those born after certain terms, slavery has disappeared in states where it formerly extensively existed: and this extinction of so foul a stain has taken place without danger or difficulty, by the present mode of carrying it into execution. It may be in my power at a future time to offer some observations on subjects connected with the extinction of slavery, which the limits and nature of this work preclude.

A serious obstacle to the advantageous emancipation of negroes in the United States, is the extraordinary prejudice of colour. Europeans can hardly conceive the force with which this absurd and unjust prejudice acts in America, not only against those whose blood is unmixed, but against those coloured persons whom it requires much experience, and perhaps legal evidence to discover, as being under the ban of this exclusive aristocracy of complexion. If an individual, concentrating the wisdom and virtues of every age in his own person, and inheriting the qualities of a Socrates, an Alfred, a Gustavus Vasa, and a Washington combined, were born with a *negro* skin in the United States, I do not think that he would ever be allowed *a perfectly social equality with a white scoundrel.* The consequence of this artificial and unjust social degradation is not unfrequently a real debasement, which often renders the free coloured population comparatively unprofitable members of society.

12.[1] Those who have the interests of their country at heart, and look with a prophetic eye, not only to the interests of humanity, but to those of policy, have long wished to do away with so great a source of weakness and unhappiness as the existence of slavery in the United States, and at the same time to secure for those emancipated a home, where the practice of the principles laid down by the declaration of independence will not be at variance with its theory. With this view the establishment of a colony was proposed so early as the year 1796, by a distinguished Friend or Quaker, named Gerard Hopkins; but it did not produce much useful effect until General C. F. Mercer, the Wilberforce of the American Congress, opened a correspondence with the philanthropists of the different states, which led to the formation of the American Colonization Society, in 1817.

> "The great objects of that society, were—the final and entire abolition of slavery, providing for the best interests of the blacks, by establishing them in independence upon the coast of Africa; thus constituting them the protectors of the unfortunate natives against the inhuman ravages of the slaver, and seeking, through them, to spread the lights of civilization and Christianity among the *fifty millions* who inhabit those dark regions. To meet the views of all parties, they had a most difficult path to tread; but as all legislation on the subject of slavery was *specially reserved to the respective states by the Articles of Confederation, and had*

[1] *Ibid.,* pp. 184-189.

become the basis of the Constitution of the United States, they very wisely, instead of denouncing an evil which they had not the power to overthrow, had recourse to the more sure, but gradual mode of removing it, by enlightening the consciences, and convincing the judgments, of the slave-holders. Their theory is justified by experience; for while our little colony has grown quite as fast as could be wished for by its most judicious friends, these principles have been silently gaining ground in the slave states, yet so rapidly, *that the number of slaves offered gratuitously by benevolent owners, exceed ten-fold the present means of the society to receive and convey them to Africa.* The disposition of Virginia has been already shown. Delaware and Kentucky have also proved their anxiety to concur in so noble a cause; and Dr. Ayres, the earliest governor of Liberia, now resident at Maryland, asserts, 'that owing to the plans and principles of colonization being better understood, in less than twenty years there will be no more slaves born in that state.'

"A party in South Carolina is now almost the only opponent that the society has at home; and, as if to afford the most incontestable evidence that its plan will destroy the institution of slavery in the United States, they ground their opposition upon the *inevitable tendency* of colonization to *eradicate slave-holding*, and thereby deprive them of their *property.*

"But if the present means of the society are inadequate to effect its purposes, it will be recollected that only eight years have elapsed since Cape Messurado, then a mart for the sale of 10,000 fellow-creatures annually, was purchased from the natives; that unhallowed traffic has been entirely destroyed; a flourishing colony of 2000 emancipated slaves has been founded; churches, schools, commerce, and even a newspaper established, and the confidence of the aborigines so completely won, that 10,000 of them are, as allies of this new republic, participating in the blessings of civilization and religion.

"The feelings of these happy people are best described in their circular to the people of colour of the United States. Knowing that in the infancy of the society some had impugned its motives, and others doubted its success, they pointedly observe— '*judge, then, of the feelings with which we hear the motives and doings of the Colonization Society traduced—and that, too, by men too ignorant to know what the society had accomplished—too weak to look through its plans and intentions—or too dishonest to acknowledge either.*' All their letters unite in grateful thanks for the great blessings conferred upon them; and even greater are either realizing, or in prospect, for the savage tribes around. All this has been effected for the small sum of 27,000£; and its friends, at first but few, have so increased, in number and confidence, that one third of their total receipts accrued during the

last year; several religious bodies have given it their earnest and unanimous support; thirteen of the states have recommended it to the patronage of congress; and on the elevation of its champion, the Hon. Henry Clay, to the presidency, there cannot be a doubt that funds adequate to the fulfilment of this glorious design will be granted by the general government.

"If the very dregs of the human race (the slavers) can drag annually from Africa 100,000 unfortunate wretches, will it be doubted that the energies of a free people can restore half as many of her descendants, when prompted alike by duty and interest?—this, in a few years, would effect a cure of the evil?—the sum required is too small to be an obstacle. It has been shown in parliament that during the last twenty-four years about 8,000,000£ has been spent upon Sierra Leone. That sum, divided into thirty instalments, would, in as many years, settle our whole coloured population in the land of their ancestors. Nor can it fail to give the society increased confidence in the soundness of their own system, when they find that ministers have announced their intention of regulating the African colonies of England upon the same plan, and elevating the black man, by conferring upon his race the principal offices of the different posts. Neither has our scheme been unsanctioned by the approval of some of the best men of Britain—Richard Dykes Alexander, a name ever prominent in deeds of practical philanthropy, 'convinced that a more rapid progress was never known in any colony towards comfort and respectability than that of Liberia, published an appeal in its behalf; in consequence of which, the following sums were sent to Barnetts, Hoare and Co., 62 Lombard-street, who continue to act as bankers to the fund, viz.' " (here follows a list of subscribers to assist this praiseworthy undertaking). "Each 7£ 10s. of which not only secures the freedom of a slave and pays his passage to Africa, but constitutes him a freeholder of thirty acres of fertile land.

"Hence, the undersigned, as representative of the AMERICAN COLONIZATION SOCIETY, feels himself justified in drawing the same conclusion, which, he believes, the wise and good of all sects and all parties in the United States have arrived at—that it is the happy means, destined by a kind providence, for securing to Africa the fulfilment of the glorious promises in her behalf—by effecting, in the mode most consistent with their interest and happiness, the freedom of her coloured population—*et pari passu*, destroying that inhuman traffic which has so long been the affliction of Africa, the disgrace of Europe, and the scourge of America.

Elliott Cresson."

It is unnecessary for me to add any thing to the above extract to

show the views and principles of this excellent and practical undertaking, which at a comparatively small expense has effected so much without the assistance of any government, or much loss from the effects of a climate, to which the coloured population become soon habituated.

13.[1] The colonization of Africo-Americans is still discussed; very likely inspired by Seward and by his Yucatan schemes. Senator Doolittle runs himself down at a fearful rate. I regret Doolittle's mistake. Those colonizers forget that if they should export even 100,000 persons a year, an equal number will be yearly born at home, not to speak of other impossibilities. If carried on on a small scale, this scheme amounts to nothing; and on a grand scale it is altogether impossible, besides being as stupid as it is recklessly cruel. Only those persons insist on colonization who hate or dread general emancipation.

When the slaves shall be emancipated, then the owners of plantations will be forced to offer very acceptable terms to the newly made free laborers to have their plantations cultivated, which otherwise must become waste and useless lands, and the planters themselves poor starving wretches. With very little of governmental interference, the mutual relation between planter and laborer can be regulated, and the planter will be the first to oppose colonization.

Look from whatever side you like, a colonization schemer is a cruel deceiver, he is an enemy of emancipation, and if he claims to be an emancipator then he is an enemy of the planter and of the prosperity of the southern region.

Besides, the present scheme of colonization to Chiriqui is an infamous speculation to help some Ambrosio Thompson to work coal mines in that part of Central America. That individual has a grant for some lands in Chiriqui, and there these poor victims are to be exported. The grant itself is contested by the New Grenadian government. Those poor coolies will be the prey of speculators; there will arise claims against the Grenadian government—a rich mine for lobbyists and claimants. Infamy! and these fathers of the country are as blind as moles. Central America is always in convulsions, and of course the colonists will be robbed by every party of those semi-savages.

14.[2] To emancipate the slaves and leave them in these States would be a step full of the greatest danger, and the most evil consequences would be certain to follow. In America, being freed, there would be no one, as there would be in a colony, to guide and direct them as a

[1] Gurowski, Adam, *Diary, From March 4, 1861, to November 12, 1862,* p. 187. Boston, 1862.

Editor's Note.—After a stormy political career in Europe Adam Gurowski (1805-1866) came to the United States in 1849. In his many writings on economics and politics he gave evidence of possessing a remarkable insight into conditions in the United States in the years just preceding the Civil War. Among his writings, *Slavery in History, America and Europe,* and *My Diary—Notes on the Civil War* (3 vols.) are the more prominent.

[2] Bonynge, Frances, *The Future Wealth of America: being a glance at the resources of the United States . . .* , pp. 199-207. New York, 1852.

body. Therefore the negroes, except in some cases, are not prepared for freedom. They have passed from generation to generation without the habit of thinking, and thought is the mainspring to action. The labor of slaves in the Southern States is but a kind of healthy exercise, as their great increase in numbers shows—and they are altogether taken more effectually care of by their owners, than are the owner's own children; for affection of the parent is often the ruin of the child, but the negro is ruled by judgment tempered with kindness, and a great deal of leniency. The slaveholder knows that to preserve the negro strong and vigorous in body is for his interest; that ill-treatment or connivance at dissipation would be detrimental to himself; a sick negro is a burden, a healthy one is wealth to his owner. Therefore these considerations, and the naturally kind and generous feeling of the people of the South, have rendered the negroes the most contented and cheerful people that I have met with in my extensive travels. The abolitionist who would do aught to interrupt that contented condition without being prepared to better it by some practical scheme, is but a selfish demagogue, and should be discountenanced by every well-disposed man.

To bring round the immediate emancipation would not be for the interest of the slaves in the South—and it would be an unjustifiable plunder of the Southern people, as the greater portion of them have no property but slaves. It would be depriving them of that property transmitted to them by England itself. It would leave the father with his family destitute. It would leave the widow and the orphan to famish in want and misery. It would be to make vagabonds and a discontented people of the now cheerful and contented slave; it would be to cut off the right arm of the United States generally; it would be to bring round a deadly warfare between the two races, which would end in the negroes being exterminated, and would for a few years deprive England of one half of her supply of cotton.

Two articles would cease to be cultivated in America with the emancipation of slaves, viz.: cotton and rice.

The yearly exports from the whole of the United States, taking the average of the last three years, would be $135,500,000.

There are frequent discrepancies between the different reports of exports from the United States in different works; in fact there is no country so deficient in statistical information as the United States.

The yearly exports of cotton, taking averages of last three years, as given in the London Times of 13th October, 1851, is

at Liverpool prices	$78,772,361
The yearly exports of rice, say	136,282
Total average exports of cotton and rice	$78,908,643

I ask Americans, could they afford to strike off $78,908,643 from their agricultural and commercial resources? Nor would the loss stop

at that sum even; cotton and rice would be imported at much lower rates by England from other countries than they could be grown here for domestic consumption by free labor. Therefore the value of these articles consumed yearly in the United States would be lost also, or a sum amounting to $9,100,128, making a total sacrifice of $88,018,771.

Emancipation would be the destruction of the United States from one end to the other.

Cotton now stands the planter, with slave labor, 5½ cents per lb.; expense of cultivation, and ginning—slave labor stands him in 21⅔ to 25 cents a day. For white labor, the planter will have to pay 50 cents up to one dollar a day, which will raise the expense of cultivating cotton, as 21⅔ is to 50, or 12⅖ cents per lb. Four cents per lb. above market rates. But beyond this—WHERE IS THE AMOUNT OF LABOR TO COME FROM? England has had sad experience in the West Indies, of the effect of emancipation, which reduced estates from the value of £50,000 to £4,000 or £5,000. Abolitionists represent that falling off in value to other causes, but they are mistaken; the decline was so rapid that other causes had no time to operate, nor do the English themselves believe that other than emancipation of the slaves had aught to do with the decline of the West Indies, and we see them doing all they can by importing Bengal coolies to supply the place of the slaves who refused to work.

Dismiss 3,000,000 laborers to-morrow, how could an equal number be supplied?

It would be very trying to the endurance of white males to labor in the hot South; white females could not do so. The present number of laborers in America is calculated at one to five of the whole population. I calculate it at one to six for agricultural laborers; here would be nearly two millions of actual laborers redeemed from the necessity to labor, and to get two millions of substitute whites, it would be necessary at least to import some eight or ten millions of whites. For two million of males could not be exclusively found. The whole immigration of twenty years into this country was about 1,855,643—so the laborers necessary could not be obtained; and to ensure any number of laborers at all, wages would go up to a higher rate than it is at present.

What would the slaves do if emancipated? To get the necessary means of life would be an easy matter. They would plant some Indian corn, and probably some ground-nuts and sweet potatoes; that would be the extent of their agriculture, and possibly they might keep some poultry and pigs; but a large portion of the more intelligent would flock into cities. Some would establish little shops and brothels, others would hire themselves as butlers, &c., and a general system of petty theft would be carried on in every city where they would establish themselves. They would become objects of derision and hatred to the white population; and the few who would amass wealth would only be

the cause of greater temptation to the rest to flock into cities. However, the more ignorant might remain in the districts and cultivate these articles mentioned; but they never would do so to the extent of their wants; and then thefts would be the only way left to obtain means. The negro is naturally indolent, and as a hired laborer would be employed with reluctance; and as no planter could depend on getting him to labor at the necessary times, the planter would not run the risk of planting where there was no certainty of his being able to save his crop; and the slave's chance to get employment would be but poor. The emancipated negro, under the circumstances, would become a nuisance in these States, and would, in course of time, be cut off from the land. But allowing that negroes would render themselves happy, and that they would take care of themselves; still cotton and rice planting in the South solely depends on the preservation of the present state of things; for raise the scale of labor to the height that it necessarily would be after emancipation, the cost of producing the above articles would be as stated, at lowest, 12 9/15 cents per lb. In some parts it is even now 6 to 7 cts. per lb., with slave labor; therefore, cotton would cease to be planted. Rice, too, would not only be unprofitable, but I fear the constitution of the whites could not endure the unhealthy exhalations from the paddy lands. I doubt even if the negro, who never had been accustomed to rice planting, would not suffer greatly from its bad effects.

America holds the first place in the cotton market, because she is able to produce a cheap article. Raise the price of labor from 25 to 100 cents, or even 50 cents, and the expense of cultivation will be quadrupled, or at lowest calculation doubled. The expense of cotton cultivation is now from 5½ to 7 cents per lb. India can produce her best cottons equal to fair New Orleans, and lay it down in Liverpool for 7 cents per lb. Raise the expense here to 11 or 14 cents per lb. of cultivation, and you would enhance the price of Indian cotton to that or any other amount of increase for the expense of cultivation; therefore, the following would be the state of things:—

Slave labor at 25 cents a day, expense of cotton cultivation, &c.,	5½	to 7	cents per lb.
Free labor at 50 cents a day, expense of cultivation, &c.,	11	to 14	"
Free labor at 100 cents a day, expense of cultivation, &c.,	22	to 28	"
Expense of cultivation and landing East India cotton of fair New Orleans kind at Liverpool 3½d per lb. or	7		"

So that emancipation of the slaves at present would give a premium of 100 to 400 per cent. as an advance in price of cotton, to planters in India, in Brazils, and in Egypt. Can any man doubt the result? An advance in price of cotton to 100 per cent., or even 50 per cent.

above present prices, would have the effect of stopping half the cotton mills all over the world.

. . . . . .

But, to go further into the subject in its economical bearings, it is necessary to get a glimpse at the actual expense a slave is to his master. Taking the value of the grain, the animal diet, &c., which he consumes, and his clothing, to be 50 cents a week (which I believe is a very moderate calculation), then as all slaves cannot work from their birth to the age of 90, there consequently must be a support allowed for the two terms of his existence—viz., childhood and old age, for sickness, and for one day in every seven; for insurance of life, for taxes, and all the risks that are liable to be encountered by his absconding, &c., and for expenses of superintendence.

From the "Census of Charleston" (printed in 1849), an interesting and valuable work, I have taken the following:—

The number of slaves out of 100 who have died during the following periods are, viz.:—

				died by
Of every 100 born, there died	before	1 year ...	21.64	21.64
" 100 from 1 year to	"	5 years...	16.78	38.42
" " from 5 years to	"	10 years...	2.79	42.21
" " from 10 years to	"	20 years...	7.52	49.73
" " from 20 years to	"	30 years...	9.13	58.86
" " from 30 years to	"	40 years...	7.94	66.80
" " from 40 years to	"	50 years...	8.43	75.23
" " from 50 years to	"	60 years...	6.85	82.08
" " from 60 years to	"	70 years...	6.20	88.28
" " from 70 years to	"	80 years...	4.82	93.00
" " from 80 years to	"	90 years...	4.32	97.42
" " from 90 years to	"	100 years...	1.76	99.47
Upwards 100 years			.70	99.87

Which, calculated as in table, will show that of the above 100 negroes, from birth to their death, they labored 518,638 days; the number of days supported, 1,045,732. Therefore, the days there would be work done are as 1 to 2 of the days supported:—

Therefore, to 2 x 50,	100 cents per week
Life assurance, say 400 dollars each at 3 per cent. per annum,	23 " "
Medical charges, &c., per week,	7 " "
Total,	130 " "
Or per day, for six days per week	21 2/3 cent.

The expense of superintendence, &c., will make it fully 25 cents, or more. . . .

15.[1] . . . [I]n the due course of time, as the population increases, and planters can go to the market and get laborers when required, and at more reasonable rates, slaves will be less needed and less valued. There can be not the least doubt that slavery, about which men are now disposed to shed each other's blood, and to exterminate each other, will in a few years assume a different feature; and is it not better to wait with a little patience until labor can be obtained, than to throw the whole country into poverty and confusion, and reduce it to years of bloodshed and extermination, that will inevitably follow [any] violent measures by abolitionists? Twenty years hence slavery will be a thing very easily dealt with. At present there are but a few leading staples in America; [and] to enter into their cultivation, it is necessary to retain laborers all the year round. Were there a great variety of products, it would widen the field for employment, and one crop would come into the barn before the other would be ripe; and thus the intermediate time, say, for instance, between planting cotton and in picking or collecting the pods, could be occupied with other staples. This cannot be the case now, nor never will, while America confines herself to cotton and corn, and pig feeding. There are no people in the world so little employed as the slaves of the south, because of this state of things; and the man who represents them as hard-labored, must be altogether ignorant of the facts, or a designing fomentor of discord.

In all the old countries, India, &c., slavery is but a nominal thing, so much so, that it passed into a term of courtesy and compliment—Ap ka golambundee hy: "Sir, I am your slave." And when the British East Indian Company say they abolished slavery in the East, they did nothing more than pass an act against a term that had no meaning. Among all the higher classes in India to-day, there are slaves—who are so, willingly; who might be more appropriately called hangers-on, because they cannot do better. Slavery is only necessary or useful where labor is scarce. Cheap labor and slavery are incompatible in the same country, except such slavery, the worst of all slavery,—the hard-worked, ill paid, ill treated servants of England. . . .

16.[2] In concluding our labors, there is little need of extended observation. The work of Emancipation, in our country, was checked, and the extension of Slavery promoted:—first, by the Free Colored People neglecting to improve the advantages afforded them; second, by the increasing value imparted to Slave-labor; third, by the mistaken policy into which the Abolitionists have fallen. Whatever reasons might now

[1] *Ibid.*, pp. 207-208.

[2] Christy, David, *Cotton is King: or the Culture of Cotton, and its relation to Agriculture, Manufactures and Commerce; etc.*, pp. 184-200. Cincinnati, 1855.

Editor's Note.—David Christy, who was born in 1802, made some valuable contributions to the study of geology and wrote in addition a number of books on slavery and cotton culture. Although at times rather dramatic in his style, his works are not without considerable merit.

be offered, for emancipation, from an improvement of our Free colored people, is far more than counterbalanced by its failure in the West Indies, and the constantly increasing value of the labor of the Slave. If, when the Planters had only a moiety of the markets for Cotton, the value of Slavery was such as to arrest emancipation, how must the obstacles be increased, now, when they have the monopoly of the markets of the world?

We propose not to speak of remedies for Slavery. That we leave to others. Thus far this great civil and social evil, has baffled all human wisdom. Either some radical defect must have existed, in the measures devised for its removal, or the time has not yet come for successfully assailing the Institution. Our work is completed, in the delineation we have given of its varied relations to our commercial and social interests. As the monopoly of the culture of Cotton, imparts to Slavery its economical value, the system will continue as long as this monopoly is maintained. Slave-Labor products have now become necessities of human life, to the extent of more than half the commercial articles supplied to the Christian world. Even Free labor, itself, is made largely subservient to Slavery, and vitally interested in its perpetuation and extension.

Can this condition of things be changed? It may be reasonably doubted, whether anything efficient can be speedily accomplished: not because there is lack of territory where freemen may be employed in tropical cultivation; not because intelligent free-labor is less productive than slave-labor; but because freemen, whose constitutions are adapted to tropical climates, will not avail themselves of the opportunity offered for commencing such an enterprise.

KING COTTON cares not whether he employs slaves or freemen. It is the *cotton*, not the *slaves*, upon which his throne is based. Let freemen do his work as well, and he will not object to the change. Thus far the experiments in this respect have failed, and they will not soon be renewed. The efforts of his most powerful ally, Great Britain, to promote that object, have already cost her people many hundreds of millions of dollars; with total failure as a reward for her zeal. One-sixth of the colored people of the United States are free; *but they shun the cotton regions*, and have been instructed to detest *emigration to Liberia*. Their improvement has not been such as was anticipated; and their more rapid advancement cannot be expected, while they remain in the country. The free colored people of the West Indies, can no longer be relied on to furnish tropical products, for they are fast sinking into savage indolence. HIS MAJESTY, KING COTTON, therefore, is forced to continue the employment of his slaves; and, by their toil, is riding on, conquering and to conquer! He receives no check from the cries of the oppressed, while the citizens of the world are dragging forward his chariot, and shouting aloud his praise!

KING COTTON is a profound statesman, and knows what measures will best sustain his throne. He is an acute mental philosopher,

acquainted with the secret springs of human action, and accurately perceives who will best promote his aims. He has no evidence that colored men can grow his cotton, but in the capacity of slaves. It is his policy, therefore, to defeat all schemes of emancipation. To do this, he stirs up such agitations as lure his enemies into measures that will do him no injury. The venal politician is always at his call, and assumes the form of saint or sinner, as the service may demand. Nor does he overlook the enthusiast, engaged in Quixotic endeavors for the relief of suffering humanity, but influences him to advocate measures which tend to tighten, instead of loosing the bands of Slavery. Or, if he cannot be seduced into the support of such schemes, he is beguiled into efforts that waste his strength on objects the most impracticable—so that Slavery receives no damage from the exuberance of his philanthropy. But should such a one, perceiving the futility of his labors, and the evils of his course, make an attempt to avert the consequences; while he is doing this, some new recruit, pushed forward into his former place, charges him with lukewarmness or Pro-slavery sentiments, destroys his influence with the public, keeps alive the delusions, and sustains the supremacy of KING COTTON in the world.

Population and Economic Resources of the North and South

17.[1] Causes of the prosperity of the Northern States without the aid of slavery:—It may be objected to the claims here made for the superior economy of slave labor in new countries, and wherever labor is scarce and dear, that the Northern States of this Confederacy, without slavery, have prospered as much and (as most have said) much more than the slave-holding States. There are sufficient causes of all that is well founded in this claim of equality or superiority, and for the outward appearance of much more than is true.

The settlers of all the present United States brought with them from Europe habits of industry and artificial wants, which had been produced and cultivated in their ancestors by their former, and then extinct, old system of slavery. The first colonists of America, though settlers in a new country, were an old people, with established habits of industry. A cold and severe climate, and generally land but moderately productive, required and compelled labor and frugality. To be indolent and wasteful would be equivalent to starving before the end of the next winter of six months' duration. Further, the settlers of New England were still more impelled to exertion by their religious fanati-

[1] Ruffin, Edmund, *The Political Economy of Slavery; or, the institution considered in regard to its influence on public wealth and the general welfare,* pp. 22-23. [1857?].

Editor's Note.—As a writer on agricultural subjects and as a practical agriculturist Edmund Ruffin (1794-1865) holds a distinguished place in the history of the first half of the last century. He was the editor of the *Farmers' Register* from 1833 to 1842. He was an ardent advocate of states' rights and an uncompromising secessionist.

cism, which had first made them seek a new home on a barren soil, and under a rigorous climate, and prepared them to endure any degree of labor and privation. Not only the virtues, but the follies and the vices nourished by the religion and theocratic government of this peculiar people, served to stimulate effort and labor much more than ordinary physical necessities and inducements alone would have done. But, in addition, the puritan New Englanders availed themselves, as much as was serviceable to them, not only of African slaves, but of their Indian captives, whom they systematically reduced to domestic slavery. And they continued to hold their slaves until after the war of the Revolution. But in so cold a country, and where the products of agricultural labor were of so little amount, slave labor was of much less value than in countries under opposite conditions. As soon as there was even a moderate supply of free labor, it became cheaper to hire such, even at higher rates, for the few months only when it was available, than to maintain a slave throughout the year, and for months together of winter, when no agricultural work could be performed. Hence the time for the natural and economical extinction of slavery in New England soon arrived. And if the masters had not had (and used) the resource of selling their slaves to the South, they would have emancipated them, not for any conscientious scruples, (which now so heavily oppress them in regard to Southern slavery,) but for profit. The like reasons and causes operated more slowly to extinguish domestic slavery in the middle Atlantic States; and the growing anti-slavery doctrines served still more to forward and extend the removal of slavery where it had existed, and to forbid and prevent its being established in the new Northwestern States. The longer and more rigorous winters there also prevented regular or continuous agricultural labor, and would have served to detract much from the profits of negro slavery, if it had existed there. But if both law and fanaticism had not forbidden, it would be both profitable and highly beneficial to use negro slaves to a limited extent in all the Northwestern States, and especially for house servants. And they would have been indispensable, even for agricultural labors, despite the disadvantages of climate, if a supply for such service had but been continually furnished in the hordes of destitute European immigrants, who, of course, all go to these States, or newer territories, where labor is most in demand, and, therefore, is most highly paid for.

But there are other and stronger reasons for the prosperity and success of the Northern States. Even after negro slavery was removed from them, its continued existence and extension in the Southern States served to foster and stimulate, and reward the industry of the Northern States. Southern products, ever since the existence of the federal constitution, have been tributary to Northern navigation, commerce, and manufactures—and the tribute has been made more and more oppressive to the South, and profitable to the North, by means of federal legislation giving bounties, direct or indirect, to

Northern industry, capital, and general interests. It will never be known by the South, nor appreciated by the North, how much tribute has thus been paid by Southern industry and capital, (and all derived from the products of negro slavery,) to swell Northern profits and wealth, until the existing union of the Northern and Southern States shall be dissolved. Should that contingency occur, then, for the first time, will the Northern States have to support themselves from their own resources, and without the great and unacknowledged aid to their wealth derived from the slave labor and the products of the South—and they will then learn to know the value of all that they have lost.

18.[1] Let us look at the relative increase of population in the Southern and the Northern States.

The fifteen Slaveholding States of America contained, according to the census of 1860, 12,240,000 inhabitants. Of these 8,039,000 were whites, 251,000 free coloured, and 3,950,000 were slaves. The actual gain of the whole population of these States, from 1850 to 1860, was 2,627,000, equal to 27.33 per cent. The slaves during the same period advanced in numbers 749,931, or 23.44 per cent.

Contrast this with the Free States. The nineteen Free States and the seven Territories of America, together with the Federal District of

THE NUMBER OF SLAVEHOLDERS AND SLAVES IN THE UNITED STATES IN 1860.

State.	Number of Slaveholders.	Number of Slaves.
Virginia	52,128	490,865
Georgia	41,084	462,198
Kentucky	38,645	225,483
Tennessee	36,844	275,719
North Carolina	34,658	331,059
Alabama	33,730	435,080
Mississippi	30,943	436,631
South Carolina	26,701	402,406
Missouri	24,320	114,931
Louisiana	22,033	331,726
Texas	21,878	182,566
Maryland	13,783	87,189
Florida	5,152	61,745
Arkansas	1,149	111,115
Delaware	587	1,798
Total	383,635	3,950,511

[1] Peto, Sir S. Morton, *The Resources and Prospects of America,* pp. 312-314. London, 1866. See note p. 199.

Columbia, contained 19,203,000 persons, of whom 18,920,771 were whites, 237,283 free coloured, and 41,725 civilized Indians. The increase was 5,624,101, or 41.24 per cent.

The marked disproportion between the increase in the Northern and the Southern States is due, as I have already argued, to immigration. But what is it that has induced immigrants to settle almost exclusively in the North? Obviously, superior inducements. What were those inducements? No doubt the opportunities affording of settling on lands, where free labour was respected.

Let us next see what has been the position of the population of the South with reference to slavery. [See table on page 442.]

We thus see that out of a population of 12,000,000 the slaves numbered nearly 4,000,000, whilst the whites numbered more than 8,000,000. But of the 8,000,000 whites, only 383,000 were slaveholders. There was, therefore, an immense proportion of free whites who were, to a large extent, practically excluded from the cultivation of the Southern soil, and compelled to earn their livelihood in other occupations.

The Wealth of the North and the South Compared 19.[1]

	North	West	South	Total
White population.....	8,626,852	4,900,368	6,222,418	19,749,638
Production.				
White hands in agriculture	823,171	728,127	849,285	2,400,583
Area, Acres.....	102,878,080	917,315,240	538,533,120	1,558,926,440
Product agriculture.....	$295,508,699	$246,097,208	$528,571,103	$1,070,236,830
Hands in manufacture....	684,761	122,354	151,944	959,069
Cotton manufacture.....	$52,062,953	$438,900	$9,367,331	$61,869,184
Total "	715,846,142	138,780,537	164,579,937	1,019,106,616
Exports.....	$78,217,202	.....	$198,389,351	$278,392,080
Tonnage.....	3,481,436	373,661	918,092	4,773,189
Railroads, miles.....	8,685	10,706	8,171	27,562
Property.				
Value of animals.....	$173,812,690	$112,563,851	$253,795,330	$538,171,871
Capital in manufacture...	382,366,732	155,883,045	94,995,674	533,245,822
Value of tonnage.....	17,407,180	1,868,305	4,590,460	23,865,945
" railroads.....	451,949,410	298,837,647	221,857,503	972,644,560
" bank capital	186,668,462	16,978,130	97,730,579	301,376,071
" private capital...	94,545,000	13,204,711	10,286,369	118,036,080
Real Estate.....	1,835,063,613	619,154,287	1,445,008,447	3,899,226,347
Personal estate.....	544,718,966	195,054,073	1,385,727,523	2,125,440,562

[1] Kettell, Thomas Prentice, *Southern Wealth and Northern Profits, as Exhibited in Statistical Facts and Official Figures,* pp. 145-147. New York, 1860. See note p. 208.

Editor's Note.—The statistics contained in Kettell's table do not refer to any one year; some of his figures refer to 1850, others to the year 1859. They nevertheless serve to indicate fairly truthfully the relative economic position of the North and the South at the time of the Civil War.

The Southern valuation includes the slaves. The Northern agricultural productions include hay, which is rather an expense than a product. The valuations of real and personal estate are those of the census returns, to which the commissioners affixed a corrected value, at $7,066,562,966. Of this the Northern proportion was $380 per head; the Southern $304; and the Western $200. That part of the country which had the least natural resources accumulated the most wealth. This has resulted from the workings of capital in aid of manufacturing and commercial industry, favored by the laws of the federal Union. The bounties paid to fisheries, the protective tariffs, giving to the Northern factories a monopoly of supplying the South and West with goods; the monopoly of the carrying trade, and the expenditure of the government revenue mostly at the North,—these have all resulted from the operation of the federal laws, and the laws of finance governing accumulated capital, have put the whole country under contribution to that capital. The laws of trade have, by concentrating the markets at the North, required a periodical Northern pilgrimage, which has enriched the cities of the East, as Mecca is supported by the pilgrimages of the faithful. The whole surplus production of the country has, therefore, centred at the North, making the rich richer, and making "capital" the sole strength of the North, as opposed to the "labor" of the South and West. While this has been the case, a very curious change has been going on in the population of the Northern States, as disclosed by the census. The poor classes of native, mostly agricultural, population, have emigrated in hundreds of thousands to the West and South, and as many poor foreigners have filled the space thus vacated to carry on small trades, and perform domestic service. This change is apparent in the census returns.

Population of the North in 1790		1,968,455
" " " " 1850		8,626,851
Increase		6,658,396
Native Northern emigration	1,428,579	
Foreigners domiciled	1,292,241	
Excess native emigration	136,338	

These foreigners are mostly domestic servants and artisans. If these were deducted from the Northern aggregate population, the value of property per head would be so much the greater. Thus the North has been dividing into a poor foreign population and a wealthy native population. The revenues and profits of the latter are derived from the large productions of the South and West, both of which contribute in a different degree to the Northern profits. The South has, however, been by far the most productive. As we have seen, its lands and slaves have risen annually in value, step by step with the rising value of their

productions, and the resulting wealth is reflected in the magnificence of the North.

The North has been concentrating wealth and cheap labor, thus strengthening its position as manufacturer for the Union, and paving the way for the export of a large surplus of manufactures, when the South and West shall have made further progress in supplying themselves. It has enjoyed the entire markets of the Union as a means, so to speak, of learning its trade. It has retained the whole carrying trade of the country for its shipping. It has received a bounty in high tariffs during its weakness, to defend it from importation, and it has gradually acquired strength in experience, capital, and skill.

Dependence of the South Upon Slave Labor

20.[1] It is not the cotton alone that demands the slave-labor, but sugar, tobacco, and other interests require growing numbers of hands, for which there is no source of supply but natural increase. It is not, therefore, a matter of surprise, that the blacks should be taken from the non-productive employments of the cities, and made to furnish the present profitable productions. The North exhibits a contrast to this —while the cities are over-run with poor who find no employment, the West is destitute of hands for harvest. It is in vain that the papers preach to the "free laborers" the importance and benefits of farm labor. They cling to the cities, crowd tenement houses, and raise numbers of pauper children, which in New York, to some extent, are collected in benevolent institutions, sent West, and "bound out" to farmers for some years. Thus, on a small scale goes on at the North what is found so generally necessary at the South.

The concentration of the blacks upon plantations leaves a vacancy in the cities that is now being supplied, to some extent, with Irish and Germans. It is obvious, however, that with the rising value of the black hands, and the necessity of their continued industry, under the imperative demands of the civilized world, that there is little room for the occupation of new States, least of all such as those of Kansas, and others not adapted to the cotton culture. It may probably require three times the number of hands that now exist to cultivate the available cotton lands in the present States, and this supply, at the rate of progress now going on, will not be reached in 70 years, by natural means, while the demand upon them for produce will, in all probability, grow faster than their own numbers. In other words, their value will continue to rise. In this view, there is no chance of extended removals to new States. It is true, at this moment a considerable removal is going on from Florida to the cotton lands of the valley; but it is not important in a general view. The migration that took place formerly into new lands was when the employment of blacks was not so profitable as now, and the richer lands of the Mississippi afforded greater induce-

[1] *Ibid.*, pp. 160-161.

ments. That will not be repeated, since the richest lands are occupied, and lack of hands only prevents a more extended cultivation of them. These general facts show conclusively how absurd it is to pretend that the planters, with their blacks so lucratively employed, would abandon these occupations to migrate into a new State, where there are no cotton lands, and which are not adapted to slave labor, for the sole purpose of an ephemeral recognition of slavery under the prospective State laws. . . .

Production and Exportation of Cotton

21.[1] The value of cotton has always been much influenced by the state of the crops in Europe. When food is dear, as a general thing, in a manufacturing country dependent upon foreign supplies of bread, a short harvest causes such a rise in its price as to absorb the earnings of the mass of people for its purchase. It results from this that the purchases of clothing are much lessened, the raw material is less in demand, and its price falls. Naturally this decline acts upon wages, and there is less employment, at lower rates. Thus the end of dear food is the cause of less means to buy it; a double distress is thus produced, which tells powerfully upon the price of cotton, as well as of other raw materials. The column of prices follows this rule. In 1845, the first famine year, the rate was 5.9 cents, and, as the price of bread fell, it rose to 12.1 in 1851, and again fell as food rose during the Crimean war, and has since well maintained its rate.

The following table shows the crops, distinguishing the Atlantic

PRODUCT AND EXPORT OF COTTON

	Crop-Bales					
	Atlantic	Gulf	Total	Export lbs.	Export value	Price U. States
Year						
1800	.....	.....	35,000	19,000,000	5,726,000	.....
1824	333,253	175,905	509,158	142,369,663	21,947,401	15.4
1830	522,062	348,353	870,415	298,459,102	29,674,883	9.9
1835	493,405	760,923	1,254,328	387,358,992	64,961,302	16.8
1840	642,287	1,535,654	2,177,532	743,941,061	63,870,307	8.5
1845	769,948	1,635,015	2,394,503	872,905,996	51,739,643	5.92
1850	751,271	1,345,435	2,796,706	635,381,604	71,984,616	11.3
1851	742,846	1,612,411	2,355,257	927,237,089	112,315,317	12.11
1852	839,625	2,175,404	3,015,029	1,093,230,639	87,965,732	8.05
1853	871,712	2,391,170	3,262,882	1,111,570,370	109,456,404	9.85
1854	788,649	2,151,378	2,930,027	987,833,106	93,596,220	9.47
1855	942,766	1,904,573	2,847,339	1,008,424,601	88,143,844	8.74
1856	910,192	2,617,653	3,527,841	1,351,431,701	128,382,351	9.49
1857	775,116	2,164,403	2,939,519	1,048,282,475	131,575,859	12.55
1858	746,562	2,367,900	3,113,962	1,118,624,012	131,386,661	11.70
1859	1,111,954	2,739,427	3,851,481	1,386,468,542	161,434,923	11.40
1860	1,480,000	2,920,000	4,300,000	1,165,600,000	184,400,000	11.5

[1] *Ibid.*, pp. 21-22.

from the Gulf States, the exported quantity and value, the price per pound, and the number of blacks at each census.

The Civil War: Some Economic Problems and Attempts at Solution

22.[1] . . . While the war was organized for political purposes, for the establishment of a new government, it was in reality a great labor movement—not so intended, but so in result; for divested of all political significance, divested even of the conditions under which it was carried on, so far as labor was concerned, it was a war of economic forces, with good or ill results to the industrial elements of the nation and particularly the South, for the South had existed under a form of labor entirely antagonistic to that existing at the North and in all other lands where material progress had marked the growth of the people. The South had been waiting, as had the late Count Chambord of France, for the world to turn backward, and to bring with such turning the wealth which comes from the development of natural resources. These resources the South possessed in great abundance. She had rich deposits of iron and other ores, and the coal to work the ores; she had timber, pasture, and arable lands without stint, with water-powers that might induce mechanics from all lands to settle there; she had a climate to lure the dwellers from inclement zones; she had scenery as varied and as beautiful as can be found in any of the states; and yet, with all these great natural advantages, immigration would not put itself into competition with slave labor. But the war came, the system of labor was changed entirely, and the South as a result has come into industrial competition with the North and with Europe.

The Civil War was an industrial revolution in another sense. The North held the mechanical industries of the country, and naturally, under the stimulus of the war, these industries could be expanded to almost any extent, and they were so expanded, giving to the North every resource of power which mechanics give to great armies. The agricultural South could not compete with the mechanical North. The war, in changing the form of labor of the South, forced upon it the adoption of the system existing elsewhere, and therefrom dates the mechanical development of the Southern States. Prior to the war there was little expansion except over areas. The resources of the South were not appreciated, nor were they prospected to any great extent; but with the close of the war attention was turned to the elements which are essential to industrial development. Before the emancipation of slavery very many prominent business men had taken the ground that climatic influences would prevent the extension of the factory system in the southern portion of the United States, and even within a very few years public men have insisted that the factory, workshop, and extensive works using machinery could not be carried on profitably

[1] Wright, Carroll D., *The Industrial Evolution of the United States,* pp. 152-154. New York, 1902. See note pp. 251-252.

in the Southern States; and yet, with the development since the war, there has come an extensive factory system there, and to such a degree as to show clearly that no climatic influence can stay its further development.

23.[1] The war which broke out in 1861 affected the cotton-interests of the country in an extraordinary manner. The cotton-growing region and the cotton-manufacturing region were separated from each other, and the former of the two was also substantially cut off from the world at large. The South could with difficulty dispose of its cotton: it could send little North, and scarce any abroad. The result was, that the acreage of cotton planted in the South fell off enormously. The planters began to raise food-crops instead. The cotton-manufactures of the South increased somewhat; but the factories were by no means able to stay the decline of cotton-planting. The North, on the other hand, deprived of its supply of fibre, was at its wits' ends to know what to do for raw material. A cotton-famine set in, during which the price of the raw material rose from eleven cents to a dollar and seventy-six cents a pound. A large proportion of the mills were obliged to discontinue operations: the remainder were obliged to resort to the unprecedented measure of importing raw cotton from foreign countries; and they did, for four years, import an average of 25,000,000 pounds a year from India, Egypt, and Brazil. This raw material they made to go as far as possible by mixing in with it flax and other vegetable fibres, and by producing to a larger extent than before goods whereof part of the material entering into them was wool. A great many of the factories transferred their attention entirely from cotton-goods to woollen-goods. Were it not for the fact that the South, which had been one of the largest markets in this country for imported cotton-goods, was cut off from receiving regular importations during this period, the cotton-famine in the North would have led to the importation of at least $50,000,000 worth of cotton-goods a year while the war was pending. What the importations into the South actually were cannot be stated; but into the North they were only $60,000,000 during the whole four years of the war. Besides the embarrassment and loss which the war inflicted upon the factories of the North, it brought a still greater disaster, with reference to cotton, upon the South. It not only cut off the sale of $190,000,000 of raw cotton yearly to the countries of Europe, and of $40,000,000 to the North, but it developed the cotton-growing of rival regions of the earth. India, Egypt, and Brazil reaped a rich harvest from the failure of the American cotton-crops from 1861 to 1865. At the end of the war the South found itself both with little cotton to sell, and with a powerful competition on its hands with the other cotton-countries. The cotton-interests of the South have recuperated since the war, however, in the most marvellous and unexpected manner, considering the utter pros-

[1] Bolles, Albert S., *Industrial History of the United States,* pp. 416-417. Norwich, Conn., 1889. See note p. 23.

tration and ruin which had overtaken them. The crop of 1865-66 was already half a crop; and so much progress was made in replanting, that, in 1875-76, the crop was as large as it ever had been in the most favorable year before the war. . . .

24.[1] During one period of the war, a large number of the cotton-mills of the country were obliged to suspend operations for the want of the raw material. There was so little cotton to be had, that the material rose from eighty-eight dollars a bale to nine hundred and a thousand dollars. No one could manufacture cotton at that price. Mill-owners closed their doors. At one time it is said that there was not a single cotton-spindle in operation in the whole of Lowell. The woollen-manufacturers, on the contrary, found themselves stimulated into wonderful activity. The government was calling continually for enormous quantities of goods. A fresh demand for American goods sprang up among the people, and the several States came into the market to buy uniforms for their re-organized regiments of militia. The mills which were in operation at the beginning of the war soon found themselves overwhelmed with orders for their goods, and a large number of them were engaged to run exclusively upon goods for the armies in the field. Under the influence of this new state of things, a great many of the woollen-factories which had been shut up during the previous hard times were re-opened and set at work. Hundreds of new factories were built in the great wool-growing region of the West: new mills were erected in nearly every one of the Southern States for the production of warm fabrics for army and people. In addition to all this, another thing took place. The cotton-mill owners of the North, seeing such a demand for woollens from both the government and the people generally, and not caring to keep their own machinery idle, resolved to turn a portion of their establishments to the manufacture of woollens. They bought expensive machinery, and put it into operation. Operatives were plenty, in consequence of the closing of the cotton-mills; and there was no difficulty in manning every spinning-jack and loom with competent hands. Every machine was run so as to produce the greatest amount of goods, and in many cases the mills were run night and day. It was an era of great prosperity. The woollen-machinery of the country was more than doubled during the war.

25.[2] So far as the revolting states were concerned, the Civil War never lost the characteristic which, from the first, it had assumed—

[1] *Ibid.*, p. 380.

[2] Draper, John William, *History of the American Civil War*, vol. iii, pp. 643-644. New York, 1870.

Editor's Note.—John Draper (1811-1882), who was born in England, came to the United States in 1832. He distinguished himself as a student of medicine and as a Professor of Chemistry at the University of New York. As an inventor he likewise stands out for his efforts on behalf of the electro-magnetic telegraph, materially aiding Morse in its invention and perfection. His account of the Civil War is a worthy contribution to the history of this critical period in American affairs.

those states were in a beleaguered condition—the military operations against them were in the nature of a siege. Their sea line was girdled by fleets, their land frontier was invested by armies. The movement of those armies presents a steady advance—an advance in which there is no going back from the day when Lincoln ordered Virginia to be invaded, to that on which Grant burst through the lines at Petersburg. One point after another is steadily gained; town after town, state after state, is entered and won. Repulses and retreats there may be, but they are quickly followed by victories and advances. The waves of conflict surge forward and back, but the tide of conquest flows irresistibly and steadily on.

On the part of the Confederates, their strictly offensive operations were never any thing more than transient sallies or sorties. This is the true character of the Shiloh campaign in the West, and of the minor movement of Van Dorn; this also is the character of the Antietam and Gettysburg campaigns, as it is of Morgan's raid into the Free States, of Early's movement upon Washington, of Hood's desperate march to Nashville.

In all this we recognize convulsive struggles, illustrated by brilliant courage; but—and this is a fact of the highest moment—there is no steady, no far-reaching military plan.

Turning from the Confederate to the National government, and considering its military operations, we must assign a very high importance to the blockade. Resorted to as one of the first acts of the war, it was remorselessly persisted in to the end. With wonderful resolution and industry a great steam navy was created—no insignificant portion of it iron-clad—and the entire Atlantic and Gulf coasts of the Confederacy absolutely sealed. The effect was a thorough destruction of the financial basis of the Confederacy, a paralysis of its industry. Cotton could not go out; and, instead of there being an immense influx of gold, what coin there was in the country passed into the hands of the blockade runner. Nor was the effect of the naval power thus put forth restricted to these great physical results; the capture of New Orleans by Farragut produced a deep moral impression. From that moment the self-reliance of the Confederacy was lost.

Financial Administration of the Civil War—The Union

26.[1] In America, until the Civil War, indirect taxation had supplied the wants of the national government, and, so far as that purpose was involved, was not objected to in any part of the country; but very generally throughout the South, and to no small extent in the North itself, very serious objection was made to the heavy burdens imposed in this manner for the avowed benefit of a single interest—the manufacturing. New England and Pennsylvania were the chief beneficiaries of this dangerous system. The proffer of tariff enactments for the

[1] *Ibid.*, vol. ii, pp. 552-555.

benefit of specified branches of industry had become as important an element in the determination of presidential elections as were the donatives to the legions of old in the exaltation of Roman emperors.

The cheerful manner in which the American people accepted every form of taxation during the war must ever be regarded as a striking incident in their history. Their zeal in this respect outran the acts of the government. Not only did they bear these financial burdens with alacrity, but they dedicated large additional sums to secure the accomplishment of the purpose they had in view. There never has existed a more splendid example of organized benevolence than the "Sanitary Commission," and yet it was only one of many forms which voluntary contribution assumed.

For a clear comprehension of the financial condition and measures of the republic during the first two years of the war, it is necessary to present an abstract of the report of the Secretary of the Treasury for the year ending on the 30th of June, 1860. The American fiscal year commences on the 1st of July and ends on the 30th of the following June.

In that report the secretary, Mr. Cobb, stated that the aggregate means for the service of that year were more than eighty-one millions of dollars ($81,091,309 43).

The expenditures for that year were more than seventy-seven millions ($77,462,102 72). A balance therefore remained in the treasury of more than three and a half millions ($3,629,206 71).

He farther estimated the means for the fiscal year next following, 1861, at more than eighty-four millions ($84,348,996 75), and the expenditure at nearly the same amount ($84,103,105 17). He remarked, however, that in practice, for many years past, the sums drawn from the treasury during any year had been much less than the amounts estimated as required during such year, and, applying such deductions to the case before him, he came to the conclusion that there would probably remain in the treasury on the 1st of July, 1862, a balance of about eight millions of dollars.

During the year 1860 the country had been in a very prosperous condition. The crops had been very abundant and prices very remunerative. The exports of the preceding year had reached the enormous sum of four hundred millions of dollars ($400,122,296), the imports more than three hundred and sixty-two millions ($362,163,941), the revenue from customs having been fifty-three millions ($53,187,511 87). The exports of domestic produce for the current year, as far as they had been received, indicated an increase fully equal to that of preceding years, and probably surpassing it, thus authorizing an estimate of increased revenue from that source.

But Mr. Cobb added that a threatened financial revulsion was impending, which threw uncertainty on the foregoing calculations. The

causes of this were outside of the financial and commercial operations of the country, and were of a political character. Already they had seriously affected the treasury, as shown by the diminished receipts from customs.

The permanent public debt, on the 30th of June, 1860, was $45,079,203 08, and the outstanding treasury notes at that date $19,690,500.

By the act of June 22d, 1860, provision was made for the redemption of treasury notes and payment of the interest thereon. This act provided for the issuing of stock for an amount not exceeding twenty-one millions of dollars, at a rate of interest not exceeding six per cent. per annum, and to be reimbursed within a period not beyond twenty years and not less than ten years. For satisfactory reasons specified by the secretary, no negotiation of any portion of this loan was attempted until the 8th of September, 1860, when proposals were invited for ten millions of the loan, which was ample to meet all the treasury notes falling due before January 1st, 1861. The rate of interest was fixed at five per cent. per annum, under the conviction that the loan could be readily negotiated at that rate, for at that time the five per cent. stock of the United States was selling in the market at a premium of three per cent. The result realized the just expectation, and the whole amount offered was taken either at par or a small premium. However, before the time had arrived for payment on the part of the bidders, the financial crisis referred to came. New arrangements, looking to an extension of the term of payment, had been necessarily accorded, and even with that some persons still remained unable to make their payments. Meantime the necessities of the treasury demanded prompt action. Not only were the treasury notes past due rapidly coming in for redemption, but those not due were being paid in for customs, thereby withdrawing from the regular operations of the government its principal source of revenue.

To meet the remaining outstanding treasury notes, and interest thereon, there were yet to be negotiated eleven millions of the stock authorized by the act of June 22d, 1860. The difficulties attending the payment for the stock already sold, in connection with the fact that capitalists, in the existing condition of the country, seemed unwilling to invest in United States stocks at par, rendered it almost certain that this remaining eleven millions could not be negotiated upon terms acceptable to the government. To meet the difficulty, Mr. Cobb therefore recommended a repeal of the act so far as these eleven millions were concerned, and the authorization of an issue of treasury notes to that amount, pledging unconditionally the public lands for their ultimate redemption. He also recommended, to relieve the treasury from its present embarrassments, the issuing of an additional amount of treasury notes of not less than ten millions of dollars.

27.[1] It was not long after the war began before it became apparent to the best financial men of the country, that a financial system adequate to the wants of the nation in time of peace, was wholly inadequate to meet the requirements of a great war; that the war was a new and great business of itself, demanding new and additional facilities, greater even than existed before the war. That the facilities for carrying on the business of the country as they existed before the war, were still necessary to carry on that business, and could not safely be withdrawn from it; and that a new currency, national in character, and to some extent a new financial system, must be *created* to meet the new and enlarged demands of the war which had been forced upon the country. This was an exigency not foreseen, and the Government was obliged to exercise all the power it possessed in passing the *war measures* detailed in the foregoing narrative.

The plan of Finance adopted in 1861-2 was successful, and proved adequate to these enlarged requirements. The Government was maintained and the Union preserved. By this plan all the men and material of war necessary to crush the rebellion were obtained without difficulty. Many mistakes were made in the conduct of the war, but the financial plan, including taxation, was an ample resource sufficient at all times to meet the vast requirements of the War and Navy Departments. The credit of the Government was brought into immediate action in the most available form. Some mistakes were also made by the Secretary of the Treasury in administering the Loan acts, and too large an inflation occurred in 1864, which might have been prevented by continued funding in 5-20 six per cent. bonds, yet in the main the financial management during the war was a decided success, because it carried the country through the terrible ordeal, and brought the ship of state safely into port. It is true that this plan was not at all in accordance with peace notions of finance, but by it all officers, soldiers, sailors and marines were paid in full, and all demands for supplies and material of war were promptly discharged. It was a complete success as a means of carrying into effect the war powers of the Government. These facts abundantly prove the efficiency and wisdom of the plan adopted in bringing the war to a successful termination. Although successful it was a heavy drain upon the resources of the country, and at times very embarrassing to business men, and they had to submit to many sacrifices. The withdrawal of such a large number of youthful laboring men into a vast army of unproductive labor, and the mistake made in the over-issue of paper currency, so inflated prices as to materially increase the expenses of the

[1] Spaulding, E. G., *History of the Legal Tender Paper Money Issued during the Great Rebellion,* pp. 208-213. Buffalo, 1869.

Editor's Note.—E. G. Spaulding (1809-1897) was a distinguished banker, and participated actively in the political life of the nation. He was a member of Congress from 1849 to 1851 and again from 1858 to 1863. Spaulding was largely responsible for the Greenback or Legal Tender Act, also the National Currency Bank bill, for which he will long be remembered.

war. It also embarrassed the people engaged in legitimate pursuits; laborers struck for higher wages, and the price of commodities greatly increased, causing considerable difficulty in keeping up the productive energies of the country, especially in establishments where large gangs of men are employed.

Nor can it be denied that the management of the fiscal affairs of the Government, both legislative and executive, during the war, was a material departure from sound political economy, applicable to ordinary times of peace. The demand for money means forced upon the country by such a gigantic rebellion, was wholly unprecedented—nothing ever recorded in history equaled this demand—and reached to such overwhelming amounts, so vastly beyond any former financial requirements, that the careful observer cannot but look back with wonder and amazement that the Government was at all able to pass successfully through such an extraordinary crisis. The authorization of a loan of $900,000,000, in one act, and an increase of the public debt in one year of over $940,000,000, over and above custom duties and internal taxes, are matters of history. The amount of the issue of paper currency and temporary obligations in various forms was almost appalling. Considerably over one million of men were at one period of the war withdrawn from productive labor. The strain upon the credit of the Government, with eleven States practically out of the Union, was very great. It would seem that no other country could have borne up under such a sudden expansion of the credit circulation, and the changing of so many men from producers to destroyers of life and property. This great inflation of the paper medium had, however, some compensating advantages. It stimulated into wonderful activity all the productive energies of common labor, skilled labor, and machinery of all kinds. War material was produced with amazing rapidity, and in abundant quantity, for equipping, supporting and moving all the great armies in the field and navies afloat. The people never flagged, hesitated, or faltered in producing and furnishing all these vast war materials, and receiving in exchange for it the promises issued to them by the Government. They *seemed* to be getting rich by the operation, and although it was to some extent unreal, yet this stimulus, aided by patriotic determination to maintain the Union, was great enough to induce the people to furnish every thing necessary to supply the army and navy to crush the rebellion, at the mouth of the cannon and point of the bayonet. No compromise was made. Superior force, backed by powerful and abundant resources, accomplished this great achievement. The army and navy were powerful and victorious, because they were sustained by all the vast resources of the country, brought to their aid voluntarily, and by the superior power of the Government which commanded these resources. These bold and decisive financial measures gave power and dignity to the Government, and although it operated upon the unwilling as a forced loan, the crisis demanded it;

it was the price of the national Union; the national faith is pledged, and every dollar of this debt must be paid, principal and interest, in gold and silver.

The value of the Union and the Government preserved in full vigor under the Constitution, cannot be estimated in dollars and cents. It is above all price. A vast continent, embracing territory and people, is now held under the control of a mighty central and consolidated Government, based upon the will of an enterprising, intelligent and powerful people. The mind of man is incapable of estimating the future progress and destiny of the American people under such a Government wisely administered. But in a financial and economical aspect, these vast sums expended present an entirely different view. Viewed simply as an economical question, the immense war debt represents only *lives and property consumed.* All the unproductive labor, vast material of war, provisions and supplies of all kinds are used up, wasted and blotted out of existence. This immense debt rolled up during four years of bloody war, stands out in bold demand upon the nation for liquidation from the future earnings and income of the people. Future labor and economy must furnish the means for its payment. This debt is the price of the Union and Constitutional Government, but their value cannot be estimated in dollars. The Government value is intangible and not present as a means of payment, but the war debt is already tangible; the bills are footed up, and the total amount is over $2,500,000,000.

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Immediately after the war began we commenced our departure from the gold standard, for the reason that every dollar expended for the waste of war was expended for a pecuniarily unproductive purpose. Every dollar expended took out of existence a dollar of value for which the Government gave its promise to pay. Every dollar of property thus destroyed led us farther and farther away from the specie standard, and has to be produced again by labor before the value is restored. In one year, from July 1, 1864, to July 1, 1865,

The Expenditures of the War Department were	$1,031,323,360 79
For Navy Department	122,567,776 12
Total waste of War in one year	$1,153,891,136 91

The history of the human race shows no such consumption and waste in any war during a single year. *One billion, one hundred and fifty-three million, eight hundred and ninety-one thousand, one hundred and thirty-six dollars and ninety-one cents* expended in one year! At the close of this year, July 1, 1865, and the close of active hostilities, one dollar in gold was worth, in greenbacks, 1.41, at the Broker's Board in New York. All the bonds and greenback promises to pay

dollars, now outstanding, do not represent tangible property or means owned by the Government, but property in the possession of the people under its jurisdiction, and from which all this waste must be reproduced again, and the value restored, in order to bring us to the specie standard and enable us to pay the debt. In short, the debt must be paid from the earnings and income of the people, in some form of taxation to be enforced by the Government.

It was fortunate that the debt, during the war and since, was distributed to a large extent among all classes of people. In fact, this was the only way in which the resources necessary to sustain the war could be obtained. The legal tender notes were paid out and distributed to the army and navy and for supplies and material of war. Certificates of indebtedness and interest-bearing Treasury notes, were also paid out to contractors and others. The loans were negotiated by direct appeals to the people to subscribe in large and small amounts. The great body of the people in the loyal states took up the loans, and became directly interested in sustaining the Government, and the great diffusion of the notes, bonds, and certificates all over the country, was the only way in which the enormous debt so suddenly created could be carried through to the close of the war. The greenback notes were very popular among the people. It was a currency in daily use, uniform in value, and passed freely in every state. It was the people's loan to the Government, without interest, and was at the same time advantageous to them, because it was money in all business transactions. It immediately became the people's war. All became pecuniarily intrusted in its success, and they furnished the means to carry it on. The crushing of the rebellion was the people's triumph; and the people will in due time pay the debt, and thereby preserve the honor and good faith of the nation.

Notwithstanding the great destruction of values consequent upon the prosecution of the war, the nation was, at its close, still possessed of great power and resources, and the material interests of the Northern and Western States were still advancing. They continue to advance; and now that peace and order are restored, and the whole country North and South have a common interest and a common destiny, will continue to advance. There is a rapid increase of population; new fields of enterprise are continually opening, adding new strength and ability to the people to work back to the specie standard, and ultimately pay, without embarrassment, every dollar of the debt incurred in maintaining the national Union.

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28.[1] The issue of CERTIFICATES OF INDEBTEDNESS at one year, was another expedient resorted to for borrowing money, and was another mode of increasing the credit circulation of the Government. By the act of March 1, 1862, the Secretary of the Treasury was authorized

[1] *Ibid.*, pp. 153-157.

to issue to creditors, who were willing to receive them, "in satisfaction of audited and settled demands against the United States," certificates of indebtedness (in effect promissory notes,) in sums of not less than $1,000 each, payable in one year at six per cent. interest. And by the act of the 17th of March, 1862, this power was enlarged, so as to embrace checks drawn in favor of creditors by "disbursing officers upon sums placed to their credit on the books of the Treasurer." The power thus conferred on the Secretary to issue certificates of indebtedness for these purposes was broad and unlimited. The certificates issued under these two acts were in the similitude of bank notes fitted for circulation as money, and did circulate to a considerable extent as currency until there was such an accumulation of interest upon them as to make it an object for capitalists to hold them as an investment. The Secretary commenced issuing these certificates simultaneously with the issue of Legal Tender (greenback) notes, and continued to issue them in large amounts during the progress of the war, which was advantageous to the Government, but at the same time was another fruitful source of inflation, and operated directly against any considerable funding in the long 5-20 bonds. The amount of indebtedness in this form on the first of November, 1864, was $238,593,000, being an amount greater than the market would bear; they were consequently depreciated and considerably below par.

In less than a month after the passage of the first legal tender act another act was passed at the request of Secretary Chase, approved March 17, 1862, by which the demand notes authorized by the act passed at the extra session in July, 1861, and the supplementary act of February 12, 1862, amounting to $60,000,000, were declared to be lawful money and a legal tender, in like manner, and for the same purposes, and to the same extent as the notes authorized by the first legal tender act. These notes, when first issued, were receivable by the Government for duties on imports, but that was not enough to prevent them from depreciating, and some of the banks in the principal cities refused to receive them from their customers as money. The object to make them a legal tender was to make them pass currently as money at the Clearing Houses, and in all business transactions, without loss to the holders.

Secretary Chase sent to the Committee of Ways and Means on the 7th of June, 1862, an official communication, accompanied by a bill proposed by him, asking, among other things, for an additional issue of $150,000,000 of legal tender notes; and that of this sum $35,000,000 should be of a denomination *less than five dollars.* This communication is published as Miscellaneous Document, No. 81, and sets forth at length the reasons why, in the opinion of the Secretary, this additional issue should be authorized by Congress. He states that the daily receipts from customs were about $230,000, and that the average daily conversions of legal tender notes into 5-20 bonds did not exceed $150,000, while the daily expenditures could not be esti-

mated at less than $1,000,000, and would probably exceed that sum; and that he had already exhausted the issue of legal tender notes authorized by the act of February 25th, 1862.

He proposed that authority be given to the Secretary of the Treasury to issue $150,000,000 in United States notes, in addition to the issue already authorized; and that these be made a legal tender for debts, except interest on loans, and receivable in payment of all loans to the United States, and for all Government dues, except duties on imports and interest.

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"If Congress shall see fit to authorize the additional emission proposed, it seems highly expedient that such part as the public convenience shall require be issued in denominations *less than five dollars. I am aware of the general objections to the issue of notes under five dollars, and concede their cogency.* Indeed, under ordinary circumstances they are unanswerable. But in the existing circumstances of the country, they lose most, if not all, their force.

"The country is involved in the expenditures of a contest for national existence, and it is highly desirable that the burdens of the people be made as tolerable as possible. If the restriction on the issue of small denominations be removed, the wants of the country will absorb a circulation of $25,000,000, and perhaps more. The interest on this circulation, say $1,500,000 a year, will be saved to the tax payers.

"Payments to public creditors, and especially to soldiers, now require large amounts of coin to satisfy fractional demands less than five dollars. Great inconveniences in payment of the troops are thus occasioned. With every effort on the part of the Treasury to provide the necessary amount of coin, it is found impracticable always to satisfy the demand. When the amount required is furnished, the temptation to disbursing officers to exchange it for any small bank notes that the soldiers or the public creditors will take, is too great to be always resisted. *And even when the coin reaches the creditors it is seldom held, but passes, in general, immediately into the hands of sutlers and others, and disappears at once from circulation.* The inconveniences, therefore, to the Government and creditors, from the absence of United States notes of small denominations, are not compensated by benefits to anybody.

"It may properly be further observed that since the United States notes are made *a legal tender, and maintained nearly at the par of gold,* by the provision for their conversion into bonds bearing six per cent. interest, payable in coin, it is not easy to see why small notes may not be issued as wisely as large ones. The notes made a legal tender circulate as money; and the

Government may authenticate, by device and imprint, small notes as well as small coins. The limit is to be found only in public convenience, which indicates denominations in gold, leaving the smaller circulation of silver (less valuable than gold,) as before.

"Another consideration which deserves to be taken into the account is this: that resumption of payments in specie can be more certainly and easily affected, and with far less of inconvenience and loss to the community, if the currency, small as well as large, is of United States notes, than if the channels of circulation are left to be filled up by the emissions of non-specie paying corporations, solvent and insolvent.

"These considerations of economy, of public advantage, and of private convenience, seem to me to justify fully the removal of the restriction upon the issue of small notes.

"I propose, further, to make arrangements for the necessary *engraving and other work for the printing and preparation for issue of these notes in the Treasury Department at Washington.* I am led to believe that a very considerable reduction of expense can be thus effected. The prospect, in my judgment, certainly warrants the trial.

"With these objects I have prepared a bill, which I herewith submit to the consideration of the committee. *The condition of the Treasury renders prompt action highly desirable;* and I trust it is not necessary to assure the Committee or Congress that, should the powers asked for be granted, they will be exercised only with the most careful reference to the requirements of the public interests. Whatever the authority granted may be, no issue of notes will be made except to replace notes withdrawn and canceled, and to meet the current expenditures authorized by Congress, which cannot be met from the receipts of revenue, from the increase of deposits, and from the proceeds of the conversion into five-twenties.

"With great respect,
S. P. Chase,
Secretary of the Treasury.

"Hon. Thaddeus Stevens,
Chairman Committee of Ways and Means."

The bill thus recommended by Secretary Chase was taken up in the Committee of Ways and Means and duly considered. After considerable discussion Mr. Stevens was authorized to report it to the House, but without the power to issue notes less than five dollars. On the 11th of June, Mr. Stevens reported the bill and the foregoing letter of the Secretary to the House. They were referred to the Committee of the Whole and ordered to be printed. On the 13th inst., the bill was made the special order for Tuesday, the 17th, and to continue the special order until disposed of.

On the 17th of June, the second bill for an additional issue of $150,-

000,000 legal tender notes, Mr. Spaulding opened the debate in a lengthy speech. The House being in Committee of the Whole (Mr. Phelps, of Missouri, in the chair) on the bill recommended by the Secretary of the Treasury, for authority to issue the additional sum of United States notes, Mr. Spaulding said:

"Mr. Chairman—This is an important measure, and I desire to submit a few remarks in the opening of the debate upon the subject.

"The requirements of the Treasury will probably not be less than $250,000,000 to meet the current expenses to the 1st of January next. How is this large sum to be obtained? I believe it can only be obtained in the mode which has been successfully adopted during the last six months. The financial plan initiated six months ago as a necessary war measure has worked well. It has exceeded the most sanguine expectations of its strongest advocates. The Secretary of the Treasury recommends a continuance of the plan which has so successfully carried the country through the perils of the past six months. I shall cordially cooperate with the Secretary, hoping that it may be equally successful in the future. It is our duty now to provide all the means which shall be necessary to pay all the current expenses to the 1st day of January. The bill now under consideration is deemed necessary for that purpose, and the Secretary assures us that the condition of the Treasury renders prompt action highly desirable.

"During the pending war, neither the President, the Secretary of the Treasury, nor Congress, can fix a limit to the expenditures of the Government, and cannot, therefore, fix a limit to the obligations to be issued on its credit. All that the Secretary can say, all that Congress can declare, is, that the President, as Commander-in-Chief, by his subordinate officers, must contract all the debts which shall be necessary to maintain the army and navy, and all other expenses incident to a vigorous prosecution of the war. The largest latitude is given to the President, Secretary of War, and Secretary of the Navy, in carrying on the war. They have full discretionary power to contract all the debts which they may deem necessary to amply supply the army and navy. All parties loyal to the Government are united in urging a vigorous prosecution of the war; all parties, therefore, ought to be willing to furnish all the means necessary for this purpose. We must, at any rate, pay all the debts contracted by the Executive in the progress of the war. If we knew how much this would amount to we could easily figure up the amount of the bonds and notes which Congress must authorize the Secretary to issue. No man, not even the President, the Secretary of War, the Secretary of the Navy, the Secretary of the Treasury, or the Chairman of

the Committee of Ways and Means, or all of them together, can give even an approximate estimate as to the whole cost of this war, because they do not know the number of years it will continue, nor what will be the final solution of the grave questions involved. We are working out a great problem, the result of which no man can know. Slavery was the cause of this war; and until the solution of the slavery question is arrived at, and the cause of the rebellion removed, we have no hope of permanent peace and tranquillity. This will take a long time; but how long no man is wise enough to determine. The war debt we all know is already large, and that it is growing fearfully larger every day. Many capitalists and bankers have already invested all their surplus means in United States stocks."

Financial Administration of the Civil War: The Confederacy

29.[1] While the unbroken finances of the North enabled it to keep immense armies in the field, and to spread a factitious prosperity through the country, the utter failure of the Confederate currency did more perhaps to demoralize the war than any other single cause, and hurried the final catastrophe. It must be admitted in the comparison that there were peculiar difficulties attending the financial system of the Confederacy, especially those growing out of the isolation of the blockade. Capital in the South was at first freely and generously invested in the Confederate bonds; but there was a peculiar limit to this aid. It was drawn principally from banks, from merchants driven out of business, and from trust estates and charitable institutions. Such sources were limited and soon exhausted; and nothing remained but to flood the country with paper money. The evils of a depreciated currency are of the most various description; they pervade all the channels of public life and are felt in every daily care of the people. In the South they produced universal distress and penetrated every home; they were named as the prime cause of desertion from the army; and they at last forced the Government to that unpopular measure of "impressment" which ultimately recoiled upon it, and furnished a powerful argument to an opposition party that was fast becoming formidable.

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The results of Impressment were meagre, and by no means repaid the hostility it caused the Government. In vain Mr. Davis appealed

[1] Pollard, Edward A., *The Lost Cause Regained,* pp. 39-42. New York, 1868.

Editor's Note.—Edward A. Pollard (1828-1872) was a fearless journalist who distinguished himself as the principal editor of the Richmond *Examiner* from 1861 to 1867. Although he supported the South during the period of the Civil War, he was nevertheless a severe critic of Jefferson Davis. While his work as historian must be read in the light of his political affiliations, Pollard spoke from conviction. His *Southern History of the War* (4 vols.) and his *Life of Jefferson Davis* are valuable contributions to Civil War history.

to the generosity of the people, and said, with his usual extravagance, in April, 1863, that there was "*but one* danger, the failure of provisions." There were many other dangers; and even when supplies were accumulated, they rotted in the depôts, for want of transportation. The railroads that were available were few; and, indeed, when these modes of transportation are in the best condition, it is an enormous task to convey on a single line all that is requisite for a great army. In Virginia, the railroads were already so worn and of such little worth, that speed on them was reduced to ten miles an hour, and tonnage from twenty-five to fifty per cent. The scarcity of food, the wreck of transportation, and other material difficulties and hardships added to a general distress in the South already multiplied by the extreme unpopularity of Mr. Davis's political measures. The fact is the Southern people had no true idea of the trials to which they were to be subjected, until the fall of Fort Donelson in the West and the simultaneous commencement of McClellan's advance on Richmond in the East unveiled the extended front of the war, and revealed the magnitude of the task which still lay before them. But it was too late then, in the second year of hostilities, to repair many fatal omissions; to send the cotton out of the country, to obtain a basis for the currency, to import large stocks of supplies. And so from this period of sober afterthought, the South may be said to have lost its former perfect and almost insolent confidence in the war and to have lived in a feverish anxiety varying with the fortunes of its arms, at one time mounting to hope, and again sinking to depths of despondency and discontent.

30.[1] As long as the war was active, and the South possessed the animation of glory and the inspiration of her passions, there was no count of the cost, and but little realization of losses. The Government suppressed the details of disasters; the press was vain and effulgent to the last. But with the end of the war came the discovery and calculation of its losses.

Its total sum was the most enormous of modern convulsions. It has been calculated thus: three thousand millions of dollars lost in the slaves, two thousand millions in ravages of the country and acts of destruction, and, at least, two thousand millions more in the sacrifices of credits and in the depreciation of property consequent upon the war—seven thousand millions in all![2] Of all this wealth the South

[1] *Ibid.*, pp. 54-56.

[2] "The losses of the South in the war have recently been stated at a larger figure. The following estimate of them is from a late speech of Senator Doolittle—one of the most moderate and judicious members of the United States Senate:—'The people of the South have been punished already by the sacrifice of all their slave property, valued at three to four thousand million dollars; by the sacrifice of more than three-fourths of all other personal property, probably two thousand millions more; by the sacrifice of their public and private credits—at least a thousand millions more; by the depreciation of the value of all their real estate at least seventy-five per cent—amounting probably to more than two thousand million dol-

was disemboweled by the sword—so much cut out of her vitals; and the danger was that of utter collapse in the shrunken body politic, death of a community from which had been carved so much of flesh and blood.

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In this unequal match of force, aggravated, as we have seen, by a disproportion of statesmanship and other causes, the material civilization of the North conquered, and impressed itself upon the entire history of the struggle. . . .

31.[1] To the condition of the Confederate finances Mr. Davis asked the attention of the Congress. He remarked that, "at the commencement of the war, we were far from anticipating the magnitude and duration of the struggle in which we were engaged. A long exemption from direct taxation by the general government had created an aversion to its raising revenue by any other means than by duties on imports; and it was supposed that these duties would be ample for current peace expenditures, while the means for conducting the war could be raised almost exclusively by the use of the public credit.

"The first action of the Provisional Congress was therefore confined to raising a sum of fifteen millions of dollars by loan, with a pledge of a small export duty on cotton to provide for the redemption of the debt.

"At its second session war was declared to exist between the Confederacy and the United States, and provision was made for the issue of twenty millions of dollars in treasury notes, and for borrowing thirty millions of dollars on bonds.

"Prior to the assembling of the Congress in Richmond at their third session, near the end of July, 1861, the President of the United States had developed in his message the purpose 'to make the contest a short and decisive one,' and had called on Congress for four hundred thousand men, and for four hundred millions of dollars. The Congress exceeded his recommendation. The necessity thus first became urgent that a financial scheme should be devised for the Confederacy on a basis sufficiently large for the vast proportions of the contest with which we were threatened.

"The plan devised by Congress at that time was based on the theory of issuing treasury notes, convertible at the pleasure of the holder into eight per cent. bonds, the interest of which was to be payable in coin. This system depended for success on the continued ability of government to pay the interest in specie. An internal tax, termed a war-tax, was levied, the proceeds of which, together with the revenue from imports, were deemed sufficient for the object designed. This scheme required for its operation that Confederate commerce with

lars more—making in all a sacrifice of property, credits, and values in the Southern States alone of at least nine thousand million dollars'."

[1] Draper, John William, *History of the American Civil War,* vol. iii, pp. 456-460. New York, 1870. See note p. 449.

foreign nations should not be suspended. It was not to be anticipated that such a suspension would be permitted otherwise than by an effective blockade.

"The Confederacy had the means, therefore (if neutral nations had not combined to aid its enemies by the sanction of an illegal prohibition on their commerce), to secure the receipt into the Treasury of coin sufficient to pay the interest on the bonds, and thus maintain the Treasury notes at rates nearly equal to par in specie. So long as the interest continued to be thus paid with the reserve of coin pre-existing in the country, experience sustained the expectations of those who devised the system. Thus, on the first of the following December, coin had only reached a premium of about 20 per cent., although it had already become apparent that the commerce of the country was threatened with a permanent suspension by reason of the conduct of neutral nations, and that the necessary result must be the exhaustion of our specie reserve.

"In the mean time, the popular aversion to internal taxation by the general government had influenced the legislation of the several states, and in only three of them—South Carolina, Mississippi, and Texas—were the taxes actually collected from the people. The quota devolving upon the remaining states had been raised by the issue of bonds and State Treasury notes, and the public debt of the country was thus actually increased instead of being diminished by the taxation imposed by Congress.

"Neither at the first nor second session of the existing Congress were means provided by taxation for maintaining the government, legislation being confined to authorizing farther sales of bonds and issues of Treasury notes. Although repeated efforts were made to frame a proper system of taxation, they were confronted by an obstacle which created grave embarrassment. About two thirds of the entire taxable property of the Confederate States consists of lands and slaves. The general power of taxation vested in Congress by the Provisional Constitution (which was to be only temporary in its operation) was not restricted by any other condition than that 'all duties, imports, and excises should be uniform throughout the states of the Confederacy.' But the permanent Constitution, sanctioning the principle that taxation and representation ought to rest on the same basis, specially provided that 'representation and direct taxes shall be apportioned among the several states according to their respective numbers, which shall be determined by adding to the whole number of free persons—including those bound to service for a term of years, and excluding Indians not taxed—three fifths of all the slaves.'

"It was further ordered that a census should be made within three years after the first meeting of Congress, and 'that no capitation or other direct tax shall be laid, unless in proportion to the census or enumeration hereinbefore directed to be taken.'

"It is plain that, under these provisions, capitation and direct

taxes must be levied in proportion to the census when made. It is also plain that the duty is imposed on Congress to provide for making a census prior to the 22d of February, 1865. It may farther be stated that, according to the received construction of the Constitution of the United States (a construction acquiesced in for upward of sixty years), taxes on lands and slaves are direct taxes; and the conclusion seems necessarily to be that, in repeating without modification in the Confederate Constitution the language of the Constitution of 1787, our Convention intended to attach to it the meaning which had been sanctioned by long and uninterrupted acquiescence.

"So long as there seemed to be a probability of being able to carry out these provisions of the Constitution in their entirety, and in conformity with the intentions of its authors, there was an obvious difficulty in framing any system of taxation. A law which should exempt from the burden two thirds of the property of the country would be as unfair to the owners of the remaining third, as it would be inadequate to meet the requirements of the public service.

"The urgency of the need was such, however, that, after great embarrassment, Congress succeeded in framing the law of the 24th of April, 1863, by which it sought to reach, as far as practicable, every resource of the country except the capital invested in real estate and slaves, and by means of an income tax, and a tax in kind on the products of the soil, as well as by license on business occupations and professions, to command resources sufficient for the wants of the country. But a very large portion of these resources could only be made available at the close of the current and the commencement of the ensuing year, while the intervening exigencies permitted no delay. In this state of affairs, superinduced almost unavoidably by the fortunes of the war, the issues of Treasury notes were increased until the currency in circulation amounted to more than six hundred millions of dollars, or more than threefold the amount required by the business of the country.

"The evil effects of this condition of things were unfortunately but too apparent. In addition to the difficulty presented to the necessary operations of the government and the efficient conduct of the war, the most deplorable of all its results was undoubtedly its corrupting influence on the morals of the people. A spirit of speculation had been fostered, debasing in its influence and ruinous in its consequences.

"Reverting to the constitutional provisions, the question arises whether it be possible to execute the duty of apportioning in accordance with the census ordered to be made as a basis. So long as this appeared to be practicable, no one could deny the propriety of abstaining from the imposition of direct taxes until the power could be executed in the precise mode pointed out by the terms of the fundamental law. But the terms of the Constitution can not be carried out so long as states or portions of states are held by the enemy; and any attempt to apportion taxes among states, some of which are

wholly or partially in the occupation of hostile forces, would be productive of the most revolting injustice. What justice would there be in imposing on the remainder the whole amount of taxation of the entire state in proportion to its representation? What else would this be in effect than to increase the burden of those who are the heaviest sufferers by the war, and to make our own inability to protect them from invasion, as we are required to do by the Constitution, the ground for adding to their losses by an attempted adherence to the letter in violation of the spirit of that instrument?

Guided by these considerations, the President therefore declared that he should deem it his duty to approve any law levying the taxation which Congress was bound to impose for the defense of the country in any other practicable mode which should distribute the burden uniformly and impartially on the whole property of the people.

"The Congress by former legislation had sought to avoid the increase in the volume of notes in circulation by offering inducements to voluntary funding. The measures adopted for that purpose had been but partially successful, and the evil had now attained such a magnitude as to permit no other remedy than the compulsory reduction of the currency to the amount required by the business of the country. This reduction should be accompanied by a pledge that under no stress of circumstances will that amount be exceeded. No possible mode of using the credit of the government can be so disastrous as one which disturbs the basis of all exchanges, renders impossible all calculations of future values, augments in constantly increasing proportions the price of all commodities, and so depreciates all fixed wages, salaries, and incomes as to render them inadequate to bare subsistence.

"The holders of the currency now outstanding can only be protected in the recovery of their just claims by substituting for their notes some other security. If the currency is not greatly and promptly reduced, the present scale of inflated prices will not only continue to exist, but, by the very fact of the large amounts thus made requisite in the conduct of the war, those prices will reach rates still more extravagant, and the whole system will fall under its own weight, thus rendering the redemption of the debt impossible, and destroying its whole value in the hands of the holder. If, on the contrary, a funded debt, with interest secured by adequate taxation, can be substituted for the outstanding currency, its entire amount will be made available to the holder, and the government will be in a condition enabling it, beyond the reach of any probable contingency, to prosecute the war to a successful issue. It is therefore demanded, as well by the interest of the creditor as of the country at large, that the evidences of the public debt now outstanding in the shape of Treasury notes be converted into bonds bearing adequate interest, with a provision for taxation sufficient to insure punctual payment, and final redemption of the whole debt."

Establishment of the National Banking System

32.[1] Secretary Chase, soon after he entered upon the discharge of the duties of Secretary of the Treasury, became enlisted in a scheme to destroy the old State banks and erect in their stead a system of National Banks whose circulation would be uniform throughout the country. In his first report to Congress, in December, 1861, he recommended the passage of a law to accomplish this end. . . .

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On the 2d of February, 1863, Senator Sherman reported a National Currency Bank bill from the Finance Committee to the Senate. It was taken up in the Senate on the 9th, and passed on the 12th by a vote of 22 to 21. On the 13th it was sent to the House, but was not referred to the Committee on Ways and Means. On the 19th it was taken up for consideration in the House, and was passed on the 20th by a vote of 78 to 64. It was approved by the President and became a law February 25, 1863.

The brief time given to the consideration of this important act, establishing a consolidation in the interest of the money power, compared with which the monster that Jackson slew (the United States Bank) was a mere pigmy, cannot escape notice. The people were absorbed in the war, and the money power had full sway in Congress. The Hon. W. P. Noble, one of the few members who protested against the passage of the act, alluded to this fact in the opening of his speech against the bill in these terms: "Mr. Speaker, it is not because I expect, by anything I can say, to change a single vote upon this bill, that I now claim the attention of the House. On the contrary I am satisfied, from the great and untiring efforts that are being made by the Secretary of the Treasury in its favor, that the passage of this bill is a foregone conclusion; not because it, or anything like it, is demanded by the people, but simply because it is a pet measure of the present head of that department."

THE NATIONAL BANKING LAW.

The National Banking Law provides: First; That any number of persons not less than five may form an association for carrying on the business of banking.

Second: That any such association shall have corporate power, to have succession for the period of twenty years, to make contracts, to sue and be sued, etc.

Third: The capital of such associations shall be not less than $50,000 in places whose population does not exceed six thousand; not less than $100,000 in places whose population exceeds six thousand; and not less than $200,000 in places whose population exceeds fifty thousand.

[1] Berkey, William A., *The Money Question,* pp. 244-247. Grand Rapids, Mich., 1876.

Fourth:[1] The aggregate amount of circulation is fixed at $354,000,000, to be apportioned as follows: $150,000,000 among the several States and territories according to representative population; $150,000,000 to be distributed by the Secretary of the Treasury according to his discretion; and the remaining $54,000,000[2] to such States and territories, having less than their share, as may make application prior to July 12, 1871.

Fifth: No association is authorized to commerce business until it shall have deposited United States bonds to the amount of $30,000 with the Treasurer of the United States.

Sixth: Every such association is entitled to receive from the Comptroller of the Currency circulating notes to the amount of ninety per cent. of the capital stock, if it does not exceed $500,000; eighty per cent. if it exceeds $500,000, but does not exceed $1,000,000; seventy-five per cent. if it exceeds $1,000,000, but does not exceed $3,000,000; and sixty per cent. if it exceeds $3,000,000.

No National Bank currency was issued until about the beginning of 1864. It will be remembered that the $500,000,000 of 5-20 bonds were not sold until the latter part of 1863; consequently matters were not yet ripe for the bullionists and bankers. In 1864, however, their plans were sufficiently matured to enable them to run gold up to an enormous premium, in what Mr. Fessenden, who was then Secretary of the Treasury, considered a very "unpatriotic" manner. For more than a year gold fluctuated between about 1.50 and 2.50, according to the success which attended the efforts of the gold operators in controlling the market. Bonds of the government were bought during this period at as low a price as thirty-five cents on the dollar in gold. This gave the bullionists and bankers an excellent opportunity to lay in, at low figures, all the bonds that were needed to establish National Banks.

The amount of National Bank notes in circulation on January 1, 1864, was $280,000; on July 1, 1864, it was $31,234,420; and on July 1, 1865, it was $146,336,030. Shortly after this the whole amount authorized by law was taken, and National Bank stock began to command a premium. . . .

33.[3] *A National Bank Law.*

It is proposed by this bill to authorize the formation of banking corporations in all parts of the country, with the usual powers of State banks. They are to have the power to issue bank notes to circulate as money, and to be secured by United States stocks, deposited in the Treasury Department as security for the redemption

[1] By the act of January 14, 1875, this section was repealed.

[2] $54,000,000 additional bank notes were authorized by the act of July, 1870.

[3] Spaulding, E. G., *History of the Legal Tender Paper Money Issued during the great Rebellion,* pp. 170-172. Buffalo, 1869.

Editor's Note.—See note p. 453. This selection is an extract from Mr. Spaulding's opening speech (January 12, 1863) on the National Currency Bank Bill.

of the currency thus issued. This bill in all its essential features is like the free banking law of the State of New York. It proposes to nationalize all the bank currency of the country by the adoption of such a coercive policy toward existing banks as will compel them to throw up their present State charters, and organize anew under this bill. A tax of two per cent. per annum is proposed on all State bank circulation, in addition to the State, county and city taxes which State banks are compelled to pay under State laws, and in addition to the internal revenue tax of three per cent. on their profits, making an aggregate tax upon State banks of about five per cent. By this hostile policy toward existing banks, it is proposed to compel them to surrender their present chartered rights, to make a market for United States stocks, to be deposited in the Treasury Department as a basis for national bank circulation under this new system, to the amount of $250,000,000.

It is anticipated that in the course of a few years, and certainly as soon as the system goes fully into operation, United States bonds will be deposited to this amount. There is no provision requiring new banks, organized under this bill, to redeem their circulating notes in coin. They are to remain under suspension of specie payments, the same as existing banks, until there is a general resumption on the part of the Government and the banks, long after the close of the war. The central idea of the measure, as stated in the Secretary's report, "is the establishment of one sound uniform currency, of equal value throughout the country, upon the foundation of national credit, combined with private capital," and making this the settled financial policy of the country. This is the scheme proposed. The first question presented is: will this materially aid the Government in the present exigency? I think it will not, and the Secretary frankly admits that "little direct aid is to be expected from this plan during the present, and not very much, perhaps, during the next year." We have already issued, and put into circulation, legal tender notes direct from the Treasury, and without the machinery or expense of a national bank, to about the sum of $250,000,000. These Treasury notes are based, for their security and ultimate redemption, upon the good faith of the people and all their property. For what currency we need in the pending struggle for national existence, will it be wise to attack the State banks? Will it be wise to raise up powerful enemies in the States to oppose any of the measures of the Government? The State bank system is older than the Constitution. It has become deeply rooted. Immense interests are involved in the banks organized all over the country under the protection and guarantee of State sovereignty. Individuals have, in good faith, paid in their money to establish these banks. Vast interests are involved in various ways. They are intimately interwoven with the commerce and business of the country. In the State of New York alone over $19,000,000 of stocks and bonds, many of which have been purchased from the State at a large premium,

constitute the security for the redemption of their circulating notes. The State of New York has now the best banking system in the world. These banks are under much more careful supervision, of a superintendent in their midst, than they would be under an officer residing as far off as Washington. The State banks have been liberal in making loans to the Government in this hour of the nation's greatest need, and their stockholders, directors, and managers are mostly loyal and patriotic. Still further aid will be solicited and expected from the existing banks. Will it be wise to make demands upon them that are not made upon all other property? Any invidious discrimination against them, in the way of taxation, it seems to me, would be unjust.

I am not opposed to a national bank, nor am I disposed to interfere with State banks. Both systems of banking may be legitimate within their sphere of action. I am willing that the country should have both. I am willing that they should go on *pari passu* and in competition with each other; but I am unwilling to make war at this time on the State banks, because I do not believe that the benefits to be derived from such a course will sufficiently compensate for the evils that will follow any attempt to destroy the present State bank system.

34.[1] The rapid growth of the National banking system is without precedent in the annals of finance. The earliest of the two acts creating these institutions was passed 25th March, 1863, and the first bank was organized 20th June following. Yet, in October, 1864, the number was 50, with an aggregate capital of $86,782,802. At the same date in 1865 the number was 1,513, and the total capital $393,157,-206. In 1866 there were 1,643 banks, with a capital of $415,278,969. This year the number is reported to be 1,643, and the total capital is $420,073,415. In how many stockholders the ownership of these corporations is now vested Mr. Hulburd does not tell us; but in his report of last year the owners of bank stock were put down at 200,000.

Although 1,672 banks have been called so suddenly into existence, 730 of which were entirely new, no more, as yet, than ten of the number have failed. Never has any country passed through so exciting a period of financial inflation with so clean a banking record. For not only has the currency of every one of the ten broken banks been fully protected by the Government endorsement, but it is actually selling in the market at a premium of two per cent.; while, as the Comptroller tells us, the general creditors of the insolvent institutions will receive on the average 70 per cent. of their claims.

Of the 424 millions of capital the 490 New England banks have 145 millions, the 314 New York banks 116 millions, the 203 Pennsylvania banks 50 millions, the 290 banks in Ohio, Indiana, and Illinois 46 millions, leaving about 67 millions distributed among the other States. If we turn next to the bank circulation we find that it has increased

[1] *The Merchant's Magazine and Commercial Review,* edited by William B. Dana, vol. lviii, pp. 27-28. New York, 1868. William B. Dana, publisher and proprietor.

See note p. 217.

from 46 millions in October, 1864, to 171 millions in 1865, 280 millions in 1866, and 293 millions in 1867. Of these 293 millions of National Bank notes 104 millions are issued by New England, 69 millions by New York, 39 millions by Pennsylvania, and 39 millions by Ohio, Indiana, and Illinois. From this it appears that about three fourths of the National Bank circulation and capital of the United States is organized in New England, New York, and Pennsylvania.

The Civil War Tariffs

35.[1] The tariff act of March 2, [1861] known as the Morrill tariff, remaining in operation but for a brief period, is chiefly interesting as an indication of the direction in which events were tending in regard to protection independently of the war. The introduction of the bill and its passage by the House of Representatives occurred during the session preceding the presidential contest of 1860, and although the threatening aspect of affairs during the winter of 1860-'61 suggested the probability of civil strife and the necessity of increased revenue, there were few, if any, who had formed an adequate conception of the magnitude of the impending struggle. The act above mentioned cannot, therefore, be classed among the revenue measures of the war, although enacted amid the political excitement by which the war was immediately preceded.

But events now followed each other in rapid succession. Mr. Lincoln having been elected to the Presidency, the threatened withdrawal of the Southern States became an accomplished fact. The formal ordinances of secession were soon followed by that result which Webster had long before predicted. It was demonstrated that secession did, indeed, mean war. Southern members, following the action of their respective States, had withdrawn from their places in Congress. The peace conference, held at the request of the Virginia legislature, met at Washington on the 4th of February and adjourned on the 27th, without effecting any approach toward conciliation. A proposition for a constitutional amendment was submitted, but the differences between the North and South were too radical to be settled by such a compromise as that therein suggested. The first overt act of war occurred on the 12th day of April, when Fort Sumter, in the harbor of Charleston, South Carolina, was fired upon. The military spirit which had been rampant in the South for several months at once found its counterpart in the North. The signal for war had been given, and the President's appeal for seventy-five thousand men "to aid the effort to maintain the honor, the integrity, and the existence of our National Union and the perpetuity of popular government" was answered by the fife and drum of marching regiments gathering from a hundred different points and hastening to the defense of the capital.

An army having been improvised, it was found that the "sinews of

[1] *U. S. Customs-Tariff Legislation of the United States,* pp. cxxi-cxxii. Washington, 1872.

war," owing to a depleted Treasury, were wanting. To supply this want one of the early acts of Congress, which met in extraordinary session on the 4th of July, 1861, was the introduction, on the 16th, by Mr. Stevens, chairman of the Committee of Ways and Means in the House of Representatives, of a bill entitled "An act to provide increased revenue from imports, to pay interest on the public debt, and for other purposes." On the following day it was taken up, a resolution having previously been adopted to close debate upon it in one hour after going into Committee of the Whole.

36.[1] There is no subject which has in times past provoked so much discussion, and in regard to which opinions have differed so widely, as the tariff. It has been a standing matter of sectional and political strife for nearly half a century, and the sentiment of the people in regard to it is still quite as much divided as when the discussion of it commenced. Always a complex and difficult question, it is particularly so at the present time. Prior to the rebellion it had no relation to internal taxes, for this form of federal taxation was then unknown to our people. It had little connection with the currency, for, until the year 1862, although the banks had repeatedly suspended specie payments, specie was the only legally-recognized standard of value in the United States. Now the question of the tariff is to be considered in connection with a permanent system of internal taxes and a depreciated, but it is hoped a temporary legal tender currency. It is obvious that a scale of duties upon imports which might have been sufficient, judicious, and beneficial, when there were no internal federal taxes and business was conducted upon a specie basis, may be insufficient, injudicious and injurious now. A large revenue is at present indispensable for the payment of the ordinary expenses of the Government, the interest upon the public debt, and for a gradual and regular reduction of the principal. Free trade, although in accord with the principles of the Government and the instincts of the people, cannot be adopted as a policy as long as the public debt exists in anything like its present magnitude. The long-hoped-for period when there shall be no legal obstructions to a free exchange of commodities between the United States and other countries is still far in the future. Duties upon imports are not only necessary for revenue, but also for the protection of those home interests upon which heavy internal taxes are to be assessed. The question now before the country is therefore one of adaptation, rather than principle. How shall the necessary revenue be raised under a system of internal and external taxes without sustaining monopolies, without repressing industry, without discouraging enterprise, without oppressing labor? In other words, how shall the revenue be raised in a manner the least oppressive to the people, without checking the prosperity and growth of the country? . . .

[1] *The Merchants' Magazine and Commercial Review,* vol. lv, pp. 454-455. New York, 1866. See note p. 217.

Enactment of Homestead Legislation

37.[1] . . . The homestead bill, or the granting of free homes from and on the public domain, became a national question in 1852. The Free Soil Democracy, at Pittsburg, Pa., August 11, 1852, in National Convention, nominated John P. Hale, of New Hampshire, and George W. Julian, of Indiana, for President and Vice-President, and adopted the following as the 12th plank or resolution in their platform:

"That the public lands of the United States belong to the people, and should not be sold to individuals, nor granted to corporations, but should be held as a sacred trust for the benefit of the people, and should be granted in limited quantities, free of cost, to landless settlers."

Thereafter it became a national question until its passage in 1862, and was in the platforms of political parties. It was petitioned for and against. Public sentiment was aroused. It was a serious innovation and would cause an almost entire change in the settlement laws. Instead of the public lands being sold for cash, for profit, or being taken, first, under the pre-emption system, which eventuated in cash purchases, they were to be given to actual settlers who would occupy, improve, and cultivate them for a term of years, and then receive a patent free of acreage charges, with fees paid by the homesteader sufficient to cover cost of survey and transfer of title.

It was the third and most important step in the history of the public land system. Once adopted, no person could estimate its moral, social, and political effects.

The public land system for eighty years prior to 1862 had attracted the attention of the ablest men in the Nation. The chairmen of committees in Congress charged with its care were able and inquiring men. This third change and new system was the result of experience and investigation by some of the profoundest men of the age. Philosophers rung the changes upon it. Political economists had foretold its failure, or had dwelt upon the evil effects of large holdings. Prior to this time, large purchases from the Government or States had usually resulted in the bankruptcy of the holders. . . .

The land system has had the benefit of the marvelous ability of Alexander Hamilton, the experience of Mr. Jefferson, Mr. Madison, Albert Gallatin, the officers of the Treasury Department, the Commissioners of the General Land Office after 1812—who were, in many instances, men of great ability and practical sense—the Secretaries of the Interior after 1849, Congressional committees by reports and investigations, the rulings of Departments and courts, the aid of numerous able land attorneys, and finally the complaints or commendations of settlers relative to existing laws, with their petitions for or against measures—the most potent of all agencies with Congress.

[1] Donaldson, Thomas C., *The Public Domain.* 46 Congress, 3 Session, House of Representatives, Ex. Doc. 47, part 4, pp. 332-333. See note p. 186.

The rich and fertile lands of the Mississippi Valley were fast filling up with settlers. Agricultural lands in the Middle States, which, after the year 1824, were bought for $1.25 per acre, now sold at from $50 to $80 per acre. Former purchasers of these Government lands in the Middle, Western, and Southern States, were selling their early purchases for this great advance, and moving west, to Iowa, Wisconsin, Minnesota, and Missouri, and there again taking cheap Government lands under the pre-emption laws.

The western emigration caused a rush—a migration of neighborhoods in many localities of the older Western States. Following the sun, their pillar of fire, these State founders moved westward, a resistless army of agents of American civilization, and there was a demand for homes on the public lands, and a strong measure for the enactment of a law which should confine locators to small tracts, and require actual occupation, improvement, and cultivation.

38.[1] *AN ACT to secure homesteads to actual settlers on the public domain.—1862.*

[Sec. 1.] *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That any person who is the head of a family, or who has arrived at the age of twenty-one years, and is a citizen of the United States, or who shall have filed his declaration of intention to become such, as required by the naturalization laws of the United States, and who has never borne arms against the United States Government or given aid and comfort to its enemies, shall, from and after the first January, eighteen hundred and sixty-three, be entitled to enter one quarter-section or a less quantity of unappropriated public lands, upon which said person may have filed a pre-emption claim, or which may, at the time the application is made, be subject to pre-emption at one dollar and twenty-five cents, or less, per acre; or eighty acres or less of such unappropriated lands, at two dollars and fifty cents per acre, to be located in a body, in conformity to the legal subdivisions of the public lands, and after the same shall have been surveyed: *Provided,* That any person owning or residing on land may, under the provisions of this act, enter other land lying contiguous to his or her said land, which shall not, with the land so already owned and occupied, exceed in the aggregate one hundred and sixty acres.

Sec. 2. *And be it further enacted,* That the person applying for the benefit of this act shall, upon application to the register of the land office in which he or she is about to make such entry, make affidavit before the said register or receiver that he or she is the head of a family, or is twenty-one or more years of age, or shall have performed service in the Army or Navy of the United

[1] *Ibid.,* pp. 347-348.

States, and that he has never borne arms against the Government of the United States or given aid and comfort to its enemies, and that such application is made for his or her exclusive use and benefit, and that said entry is made for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use or benefit of any other person or persons whomsoever; and upon filing the said affidavit with the register or receiver, and on payment of ten dollars, he or she shall thereupon be permitted to enter the quantity of land specified: *Provided, however*, That no certificate shall be given or patent issued therefor until the expiration of five years from the date of such entry; and if, at the expiration of such time, or at any time within two years thereafter, the person making such entry—or if he be dead, his widow; or in case of her death, his heirs or devisee; or in case of a widow making such entry, her heirs or devisee, in case of her death—shall prove by two credible witnesses that he, she, or they have resided upon or cultivated the same for the term of five years immediately succeeding the time of filing the affidavit aforesaid, and shall make affidavit that no part of said land has been alienated, and that he has borne true allegiance to the Government of the United States; then, in such case, he, she, or they, if at that time a citizen of the United States, shall be entitled to a patent, as in other cases provided for by law: *And provided, further*, That in case of the death of both father and mother, leaving an infant child or children under twenty-one years of age, the right and fee shall inure to the benefit of said infant child or children; and the executor, administrator, or guardian may, at any time within two years after the death of the surviving parent, and in accordance with the laws of the State in which such children for the time being have their domicil, sell said land for the benefit of said infants, but for no other purpose; and the purchaser shall acquire the absolute title by the purchase, and be entitled to a patent from the United States, on payment of the office fees and sum of money herein specified.

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39.[1] The essence of the homestead law and the amendments is embodied in the conditions of actual settlement, dwelling on, and cultivation of the soil embraced in an entry. It gives for a nominal fee, equal to $34 on the Pacific coast and $26 in the other States, to a settler—a man or woman over the age of twenty-one years, head of a family, or a single person above the age of twenty-one years, a citizen of the United States or having declared an intention of becoming such—the right to locate upon 160 acres of unoccupied public land in any of the public-land States and Territories subject to entry at a United States land office, to live upon the same for a period of five years, and,

[1] *Ibid.*, p. 350.

upon proof of a compliance with the law, to receive a patent therefor free of cost or charge for the land. Full citizenship is requisite to obtain final title.

The present homestead law contains all of the beneficial features of the pre-emption act with the additions suggested by experience and the changed condition of national life. The eighth section of the act contains the substance of the pre-emption act in the matter of purchase. If the locator desires to buy his homestead outright at the end of six months, he can, upon due proof, pay for his land at $1.25 or $2.50 per acre, as the case may be, which is called commutation of a homestead. It contains one feature as broad in its terms and as beneficial in its principle as the domain it covers. It is as follows:

"No lands acquired under the provisions of this act shall, in any event, become liable to the satisfaction of any debt or debts contracted prior to the issuing of the patent therefor.

The homestead act is now the approved and preferred method of acquiring title to the public lands. It has stood the test for eighteen years, and was the outgrowth of a system extending through nearly eighty years, and now, within the circle of a hundred years since the United States acquired the first of her public lands, the homestead act stands as the concentrated wisdom of legislation for settlement of the public lands. It protects the Government, it fills the States with homes, it builds up communities, and lessens the chances of social and civil disorder by giving ownership of the soil, in small tracts, to the occupants thereof. It was copied from no other nation's system. It was originally and distinctively American, and remains a monument to its originators.

Readjustments Following the Civil War

40.[1] These are now no longer sovereign States, but dependencies on the supreme power and will now established and centralised at Washington. The old Union has been revolutionised; new elements of power have been introduced which will henceforth subordinate the States' wheels to the great Federal Fly wheel which has been introduced into the machinery of Congress. We shall hear no more of the recognition of State sovereignties which were introduced into abolition programmes in olden times, and also flung in our faces by Democrats and Republicans with the most haughty and contemptuous disdain, when we enunciated the great principles of freedom, as they exclaimed, "we have no slavery here in the Northern States. If you want it you must go South for it." Now the white population are vassals, and have a restriction put on the exercise of the wild license of their liberty, and will not be able to "do as they have a mind to." Nobly have the Southerns fought in defence of their ancient rights to govern themselves, but their Northern invaders outnumbered them, and trod them

[1] Balme, J. R., *Synopsis of The American War* (4th ed.), pp. 162-164. London, 1866.

down under their black hoofs. If our Free Republic, so called, had been subject to biting sarcasm and blasting mockery and reproach before the war, how can it be regarded now, that millions of white men have been robbed of their God-given rights and liberties, under the vain and frivolous pretext of liberating the slave. Equality of right, prostituted in our entire history, to keep the negro race in subjection is now changed into equality of might to hold the brutum fulmen over the whites who have sought to maintain sacred and intact their supreme rights of the sovereign States, as well as the constitutional theory that governors of civil rulers must have the "consent of the governed." Whatever changes may be experienced by any parties in the United States, or that may await us in the future, we cannot but hate the elements out of which the present revolution has sprung; as well as the process through which our Northern revolutionary chieftains have climbed to fame and glory, in order to make once Sovereign States bend to their arbitrary and despotic rule. Assuming that Southerns are hopelessly defeated, with M. Assolant, a distinguished Frenchman, we look upon the final triumph of the North as likely to be fatal to the liberty of the victors; if not to many more precious lives. Both North and South were morally wrong. The South, however, was politically right; and the same arguments which justified Americans in separating themselves from England in 1776, fully vindicated the conduct of the Southern people. Their most violent opponents claim the right of the Poles, Hungarians, and Italians to change their form of government; but when the case of the South is concerned, these men run wild with ungovernable fury, and grow mad with vulgar abuse in avowing that the "South has no rights which men are bound to respect." M. Emile Olivier has designated them "Les incorrigibles." However this may be, history will pronounce the Southern people to be an ill used and persecuted race, for supposing that the members of the Convention who adopted and ratified the Constitution of the United States on the basis of being "one and inseparable," the descendants of these men are not bound by the compact which they entered into in 1776; since the first principle or rudimentary maxim on which every convention, contract, or compact is made is, that no man is bound by any act or deed except what he has undertaken or covenanted to do of his own free will; so that, as the contract of a father is not binding upon his children, even so the compact entered into by George Washington, Jefferson and Co. in 1811, was not binding on the Southern people or States, when they threw off their allegiance to the Federal government, and seceded from the Union at the commencement of the war. And when we come to consider that our Northern States and people have been the greatest sinners of the two, in the violation of the fundamental laws and principles of the Constitution, their crimes and guilt assume the form or colour of the deepest dye; and of the most aggravated kind.

41.[1] I think, then, that we are justified in arriving at the conclusion, that the Southern States are capable of immense development; and that this extensive and naturally wealthy region only requires the introduction of capital and free labour to become equal in point of production to the rest of the United States. If this point is admitted —and I do not think it will be denied by any one who understands the condition of the nation—we shall find in the Southern States, immediately after their peaceful return into the Union, an immense additional field from whence America will be able to draw resources for the liquidation of her liabilities and for future progress. In the earliest years of that restoration there will be, necessarily, a somewhat diminished production of the staples; but that diminished production will be satisfied by enhanced prices, which will be borne by the consumers. But this state of things will last only for a brief period. Except tobacco, there is no product of agriculture which expands so rapidly as cotton. In the five years between 1855 and 1860 the Southern States doubled their cotton product. Now that the war is concluded, it can be restored in a less period, and advanced upon in an increased ratio. It is to be borne in mind, that there are not fewer labourers to-day in the Southern States than when the war commenced. Whatever of injury has fallen upon those States in consequence of the war has not fallen upon the labouring class. M. Tobey, in a speech delivered before the Boston Board of Trade on the 27th of November of last year, declared, with emphasis, that "nearly the same working population which raised the five million bales of cotton and other products in 1860, is now there to plant and raise the crops of 1866." All that is wanted is capital and enterprise to stimulate that labour: and that capital and enterprise will be afforded. Whilst I was visiting the North, I was invited to spend some hours with a family of the highest distinction. One of the young ladies of that family introduced me to her brother, and I inquired was he the only brother? "Oh no!" was the reply, "we had two other brothers in the war. They were in the army of General Sherman; but so delighted were they with what they saw of the South, and so impressed were they with its advantages, that on the return of peace they begged to be allowed to go and settle there, and our father having provided them with funds, they have gone down South to purchase property and cultivate estates." This is an illustration of what is occurring amongst the families of capitalists throughout the North; and now that the Southern lands are open to free labour, I have no doubt that emigration from the North to the South will be stimulated to an extent of which there has been no previous precedent.

The abolition of slavery has disburdened the Southern States of an incubus. Those States have at command all the resources that soil

[1] Peto, Sir S. Morton, *The Resources and Prospects of America, Ascertained During a Visit to the States in the Autumn of 1865,* pp. 344-347. London and New York, 1866. See note p. 199.

and climate can afford. They lack nothing but the stimulant afforded by free institutions to bring them to a condition of prosperity equal with the most advanced States of the Union. The Americans know and acknowledge this. They understand that the commercial and financial interests of their country depend very largely upon the organization and development of Southern industry. They are prepared to throw capital and enterprize into the Southern States, for the purpose of producing results on which the prosperity of the whole nation is acknowledged largely to depend. The Government, no doubt, so far as lies within its legitimate province, will encourage and support those efforts. And what will be the consequence? Mr. Bright, in a speech delivered in the House of Commons in 1863, said—

"I was speaking the other day to a gentleman from Mississippi: I believe no man in America or in England is more acquainted with the facts of this case. He has been for many years a senator of the State of Mississippi; and he said to me, 'I have no doubt whatever that, in ten years after the freedom of the South, the production of cotton will be *doubled*, and cotton will be forwarded to the consumers of the world at a much less price than they have had it for many years.'"

I am inclined to take even a more sanguine view than that of the Senator of Mississippi. Looking at the rapid growth of the cotton-plant—at the enormous extent of the lands capable of its cultivation, which have hitherto never been brought into it—and looking also at the capital and labour which, under the free system, is flowing, and which will continue to flow into the Southern States—I do not believe I am over-sanguine in predicting—that, within *five years* from the present time, the cotton production of America will be doubled, and that the consumers of the world will have the article at a less price than they ever had it before.

Let me observe, in conclusion, that this has a most important bearing on the Resources of America. If due facilities are afforded for bringing to market the bread-stuffs of the North, and if the product of the cotton-plant in the South is restored and increased, not only will America bear, with ease, all the burden of her debt, and pay it, but she will immediately commence a career of commercial prosperity unexampled in the experience of nations.

42.[1] The Republic has been left by the war with a continent for its stage of action. It has passed from the condition of a coast power. It differs from older nations in this, that while they could develop only by warfare, the true condition of its growth is peace.

Its territory is divided by the meridian of 100° into two sections, the Atlantic and the Pacific. It contains regions nowhere excelled in agricultural fertility, and, for the production of some of the most important staples, nowhere equaled. It has vast mineral deposits—

[1] Draper, John William, *History of the American Civil War,* vol. iii, pp. 657-661. New York, 1870. See note p. 449.

coal, iron, gold, silver, copper, lead, oil. It has a surface of inconceivable variety, rich savannas and sandy plains, sultry valleys and mountains covered with perpetual snow, great navigable rivers. The student of geography can never sufficiently express his admiration of its adaptability to all the various wants of civilized man.

The physical structure of this territory has settled that the Republic shall be one and indivisible from ocean to ocean; the Civil War has determined that it shall be neither Mexicanized nor Europeanized; that it shall not be the prey of trading politicians or military aspirants; nor a collection of rival and quarrelsome states, mutually thwarting each other's progress, and each paralyzing its own industry by the maintenance of standing armies. It is to continue to be a vast community, yielding a willing obedience to the dictates of reason issuing from a central power, which it has voluntarily established for its own benefit.

In his message to Congress (Dec., 1862), Lincoln gives the following table of the past and future population of the Republic:

Year.	Population.	Year.	Population.
1800.....	5,305,937	1860.....	31,433,790
1810.....	7,239,814	1870.....	42,323,341
1820.....	9,638,131	1880.....	56,967,216
1830.....	12,866,020	1890.....	76,677,872
1840.....	17,069,453	1900.....	103,208,415
1850.....	23,191,876	1910.....	138,918,526

He anticipated that, before the close of the present century, the population would exceed one hundred millions.

But there is an element overlooked in the computations for the years after 1860 which will probably greatly change the result. The estimates here presented do not include Asiatic immigration.

The strength of the Republic turns on the prosperity and harmony of this multitudinous people, which not only thus differs in its origin, but will be made more heterogeneous by the influences to which it is exposed.

. . . So diversified are the aspects of Nature in North America, that here necessarily will be produced all kinds of modified men—men differing from each other in their physical appearance and in their mental qualities.

Some persons have been disposed to deny to climate the influence on which I am insisting. But if they believe that the human race has descended from one original pair, since some nations are white, some olive, some yellow, some red, some black, if it be not climate that has wrought these changes, it is for those persons to tell us to what else they have been due. Let them consider well whether the causes they may be disposed to suggest are not themselves the consequences of climate.

Here, living together under a common rule, will be found men who,

though of American birth, approximate in bodily conformation and in mental attributes to Englishmen, Frenchmen, Spaniards, Italians, Germans, Arabs, Persians, Russians, and with these a vast body of immigrants of European and Asiatic origin.

The present populations on the American Atlantic coast are more or less Europeanized. They are either descendants of Europeans or of European birth. Those who live on the verge of that coast are a reflex of the people who confront them on the other side of the ocean. Boston is, to all intents and purposes, an English town. Massachusetts has never ceased to be intellectually a British colonial possession. Its style of thinking is altogether English.

Passing along the coast southwardly, ethnological types are encountered, the counterparts of the French, the Spanish, the North African, their distribution being determined by the isothermal lines. Considered in the aggregate, it may therefore be said that the Atlantic verge is truly European. The men think like Europeans, and the women mimic the modes of Europeans; but passing westwardly, that resemblance, stage by stage, declines. Along the lines of the Mississippi, respect for European opinion is lost.

Such being the Europeanized condition of the Atlantic region of the United States, the Pacific region will, through the operation of similar causes, inevitably be Orientalized. In it the ideas of Asia will find a favoring habitation.

In Europe men think that political liberty is every thing. In Asia they have concluded that the form of government is of no moment provided that it has stability, and that security for the individual in person and property is the one thing to be desired. None in Asia ever think of improving their government; they restrict their changes to those who administer it. In Europe, the motto is principles, not men; in Asia, men, not principles.

The American statesman has to harmonize these discordant political elements. He has to enact for the Janus-faced republic common laws; he has to harmonize the man who limits his cares to this life, who pensively says that he expects at last to reach that place whither the flame of a lamp has gone when it has been blown out, with the man who is full of ideas of liberty and progress now, and who looks forward to immortality hereafter.

Is it to be supposed that the rules of life which suit the inhabitants of Maine will suit the inhabitants of Florida? that laws adapted to men living in the rich alluvial valleys of the Mississippi will answer for those of the great sandy plains? Must not any general political system, suitable to such different cases, though it may rest on principles that are uniform, be yet capable of varied adaptation in its applications.

The influences we are here speaking of gave to the Northern and Southern States their distinct and opposing ideas, interests, wants. They were the predisposing causes that brought on the Civil War—a

war one of the chief results of which was the concession of civil rights to the African.

If in this extreme case—for there can not arise a greater disparity than that between the white man and the black—such proved to be the unavoidable issue of the American system asserted in the shock of arms, we may rest assured that such also will be its issue in other cases that in the course of time will arise; such will be the result with the Asiatics; such, too, with the mixed population of Mexico.

The greatest of all problems with which the American statesman has to deal is that of the co-ordination of states peopled by modified men.

Part III

ECONOMIC EXPANSION SINCE THE CIVIL WAR

CHAPTER XIII

MANUFACTURING AND THE TARIFF

THE INDUSTRIAL ERA

THE American industrial revolution, which had taken firm root in the period of the Napoleonic wars, had advanced steadily in the years preceding the Civil War. When a combination of Western farmers and Eastern tariff advocates won the national election of 1860, their success not only spelled the doom of the Southern "slaveocracy," but paved the way for high tariffs and a long period of government favorable to big business. American manufacturing, however, had already developed and would have continued to do so in spite of the opposition of any political group. Too many factors operated in its favor:—vast agricultural and mineral resources which provided the raw materials; highly developed transportation facilities; freedom of trade over large sections and freedom from inherited and over-conservative ideas (1). In a similar manner the location of this manufacturing was determined by important influences (2). Whatever may have been the causes for the development and the location of manufacturing enterprises, the fact remains that in the half century between 1860 and 1910 capital invested in manufacturing had increased from approximately $1,000,000,000 to $12,000,000,000, the value of the products from $1,886,000,000 to $20,672,000,000, and the number of wage-earners from 1,311,000 to over 6,615,000 (3). Great as had been this expansion, it seemed like a snail's advance in comparison with the development in the decade of the World War.

In addition to the remarkable expansion during the second decade of the century, American manufacturing has been notably influenced by two factors. The first of these is the rise of the South as a manufacturing region, a development which has been particularly noticeable in the textile industry because of its effect upon textile manufacturing in New England and other Northeastern states (4). The second of these has been the substitution of hydro-electric power for steam (5). The rapid progress of hydro-electric power and the consolidation of numerous units manufacturing electricity into super-power systems has been sufficiently dramatic to

obscure the simultaneous growth of electric power as a manufacturing medium.

Although artificial stimulation was hardly necessary to the evolution of American manufacturing, such stimulation has been received and has undoubtedly been effective in determining the speed and direction of industrial enterprise. The wholesale and indiscriminate tariffs of the Civil War years had long been under fire of the critics, but without much effect. The Liberal Republican movement of 1872, indeed, had succeeded in achieving a 10-per-cent reduction, but the losses in revenue from the panic of 1873 had afforded sufficient excuse to restore the early rates. When the clamor for reduced taxation became strong, it was easier to meet it by a reduction of the internal taxes. It was not until the decade of the 'eighties that the question of "tariff reform" was taken up again. A tariff surplus of $100,000,000 in 1881 and 1882 brought from the Republican President Arthur a request for tariff reduction. A protectionist commission was appointed under an Act of Congress which recommended an average reduction of 25 per cent (6), but the bill of 1883 conceded an average of barely 5 per cent.

Cleveland, the first Democratic President since the Civil War, troubled as had been his predecessor by a treasury surplus, became convinced that the tariff was a "vicious, inequitable, and illogical source of unnecessary taxation" and thrust the issue definitely into politics by devoting his entire message of 1887 to that subject. The Democrats, in control of the House, reported through Representative Mills of the Committee of Ways and Means (7) and passed an act, known as the Mills bill, to lower the tariff. The Republican Senate, on its part, proposed a protectionist measure, and as neither bill could pass the other House the whole question was referred to the coming election. Although Cleveland received more votes than his opponent in the election of 1888, Harrison secured the electoral college. Under the direction of William McKinley, the Republicans put through in 1890 the highly protectionist "McKinley bill," but the disgust of the voters was so great that the Democrats regained the House in 1890 and the Presidency in the election of 1892. With Cleveland again in the White House, tariff legislation was inevitable. A bill introduced by Wilson of West Virginia (8) and opposed by a minority led by McKinley of Ohio (9) was greatly modified in the Senate and finally passed in 1894 as the Wilson-Gorman Act. Democratic protectionists and the lobbyists of the manufacturers had so influenced the bill that Cleveland bitterly denounced it and allowed it to become law without his signature.

The return of the Republicans in 1897 with the arch-protectionist, McKinley, at the helm boded ill for the recent Democratic measure. The Wilson-Gorman Act was speedily brushed aside and in its place was substituted the Dingley Act (10 and 11). The wave of prosperity following the Spanish American War quieted for a time the tariff agitation, but it revived again during the late years of the Roosevelt administration. The Republican platform of 1908 promised "tariff reform," but the Payne-Aldrich bill of 1909 was a great disappointment to those who had looked for downward revision. Although Taft strongly defended the bill, notably in his Winona address (12), when he called it the "best tariff bill that the Republican party ever passed," the Act was not favorably received and was undoubtedly a factor in the Republican split of 1912 and the victory of Woodrow Wilson. The Democrats had denounced high tariffs for so long that reduction was inevitable. It was achieved in the Underwood-Simmons bill of 1913. What the effect of this bill, if any, would have been it was impossible to tell because of the abnormal years of the World War. At all events the Republicans upon their return to power hastened in 1921 to pass an "emergency tariff," and in 1922 a more definitive bill, the Fordney-McCumber tariff (13).

Although the high tariffs were denounced on many grounds, they were particularly attacked because of the alleged exorbitant profits which they allowed manufacturers, thus raising the cost of living, and because of the unscientific method of levying these duties. To prove the first charge tariff-reformers repeatedly pointed out the fact that American manufacturers sold abroad at cheaper rates than at home. In other words, there was a certain amount of that type of "dumping" (14) which Great Britain had practiced here after the War of 1812, and which had been so bitterly denounced at the time by American manufacturers. To meet the second charge of unscientific tariff-making the Dingley Act had authorized the employment of experts to help in the making of tariffs. This board, appointed by Taft, went out of existence, but the Democrats in 1916 revived it, and as a theoretically "non-partisan" board it has remained to the present time (15).

Manufacturing Advantages of the United States

1.[1] This rapid rise of the United States to the first position among manufacturing nations is attributable to certain distinct causes, natural and otherwise, five of which may be definitely formulated as follows:

[1] *Census Reports, Volume VII, Twelfth Census of the United States, Taken in the Year 1900.* "Manufactures," *part i, United States by Industries,* pp. lvi-lix. Washington, 1902.

1. Agricultural resources.
2. Mineral resources.
3. Highly developed transportation facilities.
4. Freedom of trade between states and territories.
5. Freedom from inherited and over-conservative ideas.

A study of these causes affords an explanation of the great development of manufacturing in the United States in the past, as well as an indication of its possibilities in the future.

1. *Agricultural Resources.*—Most obvious among the natural advantages of the United States is its possession of every variety of soil, and every climate except the tropical. There is thus an abundance of food supplies of almost every form for the consumption of the people, and abundant raw agricultural materials for the use of manufactures. Both food supplies and agricultural materials for manufacture are cheaper, more abundant, and more varied in the United States than in any other manufacturing country. As a consequence, the manufacturing development of the country has extended to nearly every form of industry which ministers to the comfort and necessities of man. In many localities the character of the manufactures has been determined largely by climatic conditions and by the character of products to which the soil of such localities is especially adapted.

In the production of cotton, the leading textile staple, the United States is preëminent, furnishing 86.1 per cent of the world's production of cotton in 1899-1900. . . .

The forests of the United States furnish practically all the material required for the extensive wood-working industries of the country, and lumber valued at more than $30,000,000 is now exported annually. The only foreign sources upon which the United States relies for additional supplies of lumber are Canada, the West Indies, and Central and South America, the last two furnishing mahogany, rosewood, Spanish cedar, etc., required in the manufacture of pianos and fine furniture.

2. *Mineral Resources.*—In the second place, the United States produces nearly every mineral required for manufacturing industries. In most of these the supplies appear to be sufficient for years to come, and are obtainable at prices which compare favorably with prices in other parts of the world.

Coal, the basis of modern manufactures, exists in great abundance, and the fields are so widely distributed throughout the country as to afford easy transportation, by rail or water, to the chief distributing points and manufacturing centers. The total production of coal in the United States in 1899 was 175,428,300 metric tons of bituminous coal, valued at $167,935,304, and 54,825,776 metric tons of anthracite coal, valued at $88,142,130.[1] Reference should be made also to

[1] United States Geological Survey: *Mineral Resources, 1899, Metallic Products, Coal, and Coke,* p. 331.

the extensive supplies of natural gas, a fuel which is utilized chiefly in manufacturing. In 1899 the estimated value of natural gas was $20,024,873.[1] It is impossible to ascertain from the census reports the actual consumption of coal in manufacturing, but the reported cost of all fuel consumed in manufacturing during the census year was $205,320,632. The coal production of the United States is now larger than that of any other country, having passed the production of Great Britain for the first time in 1899. The world's estimated production of coal for 1890 and 1899 is shown in Table VI.

TABLE VI.—WORLD'S PRODUCTION OF COAL IN METRIC TONS,* BY COUNTRIES: 1890 AND 1899.†

Countries	1899	1890
All countries	720,220,758	511,482,074
United States	230,254,076	143,167,843
Great Britain	223,689,796	184,580,765
Germany	135,824,427	89,290,834
Austria-Hungary	38,739,000	27,504,032
France	32,863,000	26,083,118
Belgium	21,917,740	20,365,960
Russia	13,104,000	6,016,525
Japan	.....	2,653,000
All other countries	23,828,719	11,819,997

* Tons of 2,204 pounds.

† United States Geological Survey: *Mineral Resources, 1900,* p. 316 *et seq.*

It appears from Table VI that the production of coal in the United States has increased 60.8 per cent since 1890. In that year its production constituted 28 per cent of the world's estimated production as compared with 32 per cent in 1899.

A supply of iron ore is equally important to the manufacturing development of a country. Table VII shows that in this mineral, as in production of coal, the United States leads all countries.

It appears from Table VII that the production of iron ore in the United States increased 53.9 per cent between 1890 and 1899, constituting 28.5 per cent of the world's estimated production in 1890 and 31.8 per cent in 1899. The stimulus these supplies of the ore have given to the manufacture of iron is seen in the remarkable advance in this industry during the last two decades. The United States passed Great Britain between 1880 and 1890, becoming the leading pig-iron-producing country in the world. Between 1890 and 1899 the increase

[1] *Ibid.,* p. 11.

TABLE VII.—WORLD'S PRODUCTION OF IRON ORE, IN METRIC TONS,* BY COUNTRIES: 1890 AND 1899.†

Countries	1899	1890
Total	79,003,522	57,098,278
United States	25,086,346	16,297,975
Great Britain	14,697,540	14,005,861
France	4,985,702	2,579,465
Germany and Luxemburg	17,989,635	‡11,406,132
Belgium	201,445	‖202,431
Spain	9,397,733	5,788,742
Sweden	2,435,200	941,241
Italy	236,549	‖173,489
Austria-Hungary	3,293,003	2,200,000
Canada	67,711	69,429
India	61,717	§
Algeria	550,941	§
All other countries	.....	¶3,433,513

* Tons of 2,204 pounds.
† United States Geological Survey, *Mineral Resources, 1900,* p. 91; *1890,* p. 22.
‡ For 1887.
‖ For 1889.
§ Not reported separately.
¶ Including Russia (1888) and Cuba (1890).

in production in the United States was 4,418,000 tons, while in Great Britain it was 1,401,105 tons. The pig-iron production of the United States in 1899 was 13,620,703 tons, or 34.1 per cent of the world's production.

A special advantage connected with the abundance of coal and iron ores in the United States is the fact that deposits of these minerals, together with deposits of limestone, which is used for fluxing the iron ore, are frequently found in the same locality, thus greatly facilitating their use in manufactures.

In the production of crude copper the advance of the United States to the front rank has been even more rapid and remarkable. Statistics of the world's output in 1850 place the copper production of all countries in that year at 52,250 tons, to which quantity Chile contributed 14,300 tons, Great Britain, 11,800 tons, Russia, 6,000 tons, Japan, 3,000 tons, and the United States only 650 tons. In 1899 the world's output of copper was estimated at 463,303 long tons, of which quantity the United States produced 253,870 long tons, or nearly four hundred times its production in 1850. The production in 1899 constituted 54.8 per cent of the world's estimated production. . . .

Of the 253,870 tons of copper produced in the United States in 1899, 123,413 tons were exported, leaving for home consumption a total of 130,457 tons. This extraordinary development in the production of crude copper was due to the increase in the world's demand for copper, arising largely from the rapid development of the electrical industries. Partly because of the abundant supplies of crude copper, the United States has now taken first rank among the nations in the manufacture of copper goods.

There is also an abundance of most of the minor metals. The production of lead increased from 143,630 short tons in 1890 to 210,500 short tons in 1899; zinc production increased from 63,683 short tons in 1890 to 129,051 short tons in 1899; quicksilver from 22,926 flasks (of 76½ pounds avoirdupois net) in 1890 to 30,454 flasks in 1899; and aluminum from 61,281 pounds (including aluminum alloys) in 1890 to 5,200,000 pounds in 1899. There have been corresponding increases in the production of practically all the non-metallic minerals consumed in manufactures.

On the other hand, the United States relies in constantly decreasing degree upon the ores of other countries. Where these are imported it is chiefly in the form of pigs and bars. The principal imports of this character for consumption during the fiscal year 1899 were 67,362,207 pounds of tin in bars, blocks, pigs, etc., valued at $11,843,357; 9,237,064 pounds of lead-bearing ores of all kinds, valued at $185,872; 4,760.5 pounds of platinum in ingots, bars, etc., valued at $951,154; 21,028 tons of nickel ore and matte, valued at $1,183,924; and 48,017 tons of copper ores, valued at $608,399.[1]

3. *Transportation Facilities.*—Another important advantage possessed by manufacturers in the United States is the unusual facilities for transportation, particularly in the more thickly settled sections, where manufacturing industries predominate. Over 18,000 miles of navigable rivers not only facilitate transportation directly but cause

[1] Regarding the manufactured copper which is imported notwithstanding the large excess of domestic production of copper over the domestic consumption of that metal, Mr. Charles Kirchoff, expert special agent of the Census Office, for the smelting and refining of lead, copper, and zinc, writes as follows: "There has been built up in the United States, particularly along the Atlantic seaboard, a very important copper smelting and refining industry, which has been able to attract a good deal of cupriferous material from all over the world. The copper ores which are imported come chiefly from Eutis mines, in Quebec, and from mines in Newfoundland. The regulus imported is partly Mexican, some of it also having come from Australia and from South America. The old copper is chiefly from Cuba, being scrap from the destroyed sugar estates. A very large share of the plates and bars is converter material in the form of blister copper which comes to this country from Mexico and Canada, the matte being blown at the Mexican and Canadian smelting works, and shipped to this country, to our electrolytic refineries, where the copper is refined and the gold and silver separated. At times, also, Chile bars long stored in London have been shipped to this country for refining and marketing. Besides, particularly during the year 1901, considerable quantities of foreign refined copper were sold to consumers in this country who were unwilling to pay the high prices demanded by the American producers."

competition with railroads, and thus make possible the cheap marketing of products. The coastwise trade of the United States exceeds that of any other country. It includes steampship lines to and from New York, Boston, Philadelphia, Baltimore, and other points, and between several of these cities and Charleston, Richmond, Savannah, Jacksonville, New Orleans, Galveston, and other Southern ports.

In recent years navigation on the great lakes has become a most important factor in the internal traffic of the country. These lakes, with the Sault Ste. Marie and Canadian canals around the rapids of the St. Marys river, the St. Clair river, the Detroit river, and the Welland canal, allow unbroken navigation between Duluth and the eastern end of Lake Ontario, a distance of 1,000 miles.

The development of freight traffic over this route has been so great during the past decade, that in 1899 it had become the greatest internal waterway in the world, having a ton mileage equal to nearly 40 per cent of that of the entire railroad system of the United States. In 1899 more than five times as many vessels passed through the United States and Canadian canals at Sault Ste. Marie as through the Suez canal.[1] In the value of manufactured products the 8 states which touch the waterways of the lake system rank first, second, third, fifth, eighth, ninth, tenth, and thirteenth, the aggregate value of products being $7,461,225,086, or 57.4 per cent of the total for the United States. This route thus borders upon the great manufacturing belt of the country. At its head are situated the most extensive mines of iron and copper and the largest hard-wood forests in North America. The average cost of transportation on the great lakes is now about six-tenths of a mill per ton mile.[2]

The railroad systems of the United States were constructed with great rapidity between 1860 and 1880, and their mileage now exceeds that of all of Europe combined. In 1899 the total mileage of the United States was 189,295 miles, as against 172,621 in Europe, constituting 39.4 per cent of the entire railroad system of the world. These comparative statistics are not, however, an accurate index of the relative transportation facilities, because of the greater distances which separate the important railroad centers of the United States, and the sparsity of the population in many sections, compared with the density of population in the principal countries of Europe. Notwithstanding these disadvantages, the railroad systems of the United States are so highly organized and so efficiently managed that the transportation of freight by rail is cheaper than in any other country. There have been extraordinary reductions in freight rates during the past thirty years. The average rates per ton mile on the trunk railroads of the country have declined from about 2 cents to 6 mills, and on two of them to 3.6 mills. In 1868 the freight on wheat from Chicago to New York by rail was 42.6 cents per bushel, compared

[1] Adams, C. C., *A Text Book of Commercial Geography*, p. 152.
[2] *Ibid.*, page 149.

with 11.55 cents per bushel in 1898. In 1877 the cost of sending 100 pounds of wheat from St. Louis to New York was 41 cents, as compared with 22.3 cents in 1898.[1]

4. *Freedom of Interstate Commerce.*—These exceptional transportation facilities are utilized in the interchange of products between states and territories covering an area of 2,970,230 square miles of land surface, possessing a population of 75,994,575, and not separated by any commercial barrier. The mainland of the United States is the largest area in the civilized world which is thus unrestricted by customs, excises, or national prejudice, and its population possesses, because of its great collective wealth, a larger consuming capacity than that of any other nation.[2] Statements of this character are confirmed by statistics for 1900, which show that the value of agricultural products was $4,739,118,752, of manufactured products $13,004,400,143, and of mining products $1,067,605,587, a total of $18,811,124,482, which was all consumed at home, except the sum of $1,370,763,571, representing the value of all articles of domestic merchandise exported in the year 1900. As a partial offset to this deduction there may be added the imports of merchandise in the same year, the value of which was $849,941,184.

5. *Freedom from Tradition.*—Another advantage which has contributed to the rapid development of manufactures in the United States is the comparative freedom from inherited and over-conservative ideas. This country entered upon its industrial development unfettered by the old order of things, and with a tendency on the part of the people to seek the best and quickest way to accomplish every object.

In all of the European countries in which manufacturing is an important industry, the transition from the household to the factory system was hampered by guilds, elaborate national and local restrictions, and by the natural reluctance with which a people accustomed for generations to fixed methods of work, in which they had acquired a large degree of skill, abandoned those methods for new ones. It was natural for the artisan classes to resist strenuously the introduc-

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[1] *United States Statistical Abstract, 1898,* p. 360.

[2] "At the same time trade was left absolutely free between all the states of the Union, no one of them being permitted to levy any tax on exports or imports beyond what might be necessary for its inspection laws. Still further to enforce this needful provision the power to regulate commerce between the states was given to the general government. The effect of these provisions was to insure to the United States a freedom of trade beyond that enjoyed by any other nation. Fifty-five millions of American people (in 1884), over an area nearly as large as the entire continent of Europe, carry on their exchanges by ocean, by lakes, by river, by rail, without the exactions of the taxgatherer, without the detention of the custom-house, without even the recognition of state lines. In these great channels the domestic exchanges represent an annual value perhaps twenty-five times as great as the total of exports and imports. It is the enjoyment of free trade and protection at the same time which has contributed to the unexampled development and marvelous prosperity of the United States." James G. Blaine, in *Twenty Years in Congress.*

tion of machinery into the industries by which they obtained their livelihood. It was natural also, that in spite of the superior advantages of machine methods, hand processes of manufacture should still continue side by side with them, in many industries in which machine work had long since usurped the whole field in the United States. This inherited and intuitive adherence to old-fashioned methods is illustrated by the silk industry in France, where the hand loom still predominates over the power loom; and by the tin plate industry in Wales, where, until recently, hand methods of production were still in force.

In the United States the tendency of the artisan class to abandon the slow hand processes has been as strong as the tendency elsewhere has been to adhere to them. Moreover, there has developed among the laboring classes in the United States a mobility such as is unknown elsewhere in the world. This has made it possible to attract to any point in the country the skilled labor required to develop any branch of industry.

In this summary of the advantages of the United States as a manufacturing nation, no allusion has been made to the influence of national legislation upon material development. Nor is it necessary to refer in a statistical report to the character of the American people, to their social, educational, and political environment, to their skill and efficiency as tool users, to the quality and productivity of the machines and tools they employ, or to the effective organization of business for economizing all productive and distributive forces. These are subjects which belong rather to economic study than to a statistical presentation of facts upon which the conclusions of economists are based. Nevertheless, there can be no complete understanding of the remarkable development of the United States during the nineteenth century unless all these things are taken into consideration. More particularly is this true in respect to the use of tools, machinery, and labor-saving devices of all kinds. It is the judgment of foreign commentators upon American development that in the adaptation of machinery to all branches of industry, this country displays a facility greater than is shown anywhere else; that the number and variety of labor-saving machines employed here is larger than in any other manufacturing country; and that in many industries the subdivision of labor has reached a minuteness and a degree of perfection not elsewhere equaled.[1]

[1] The *Journal* of the British Board of Trade, for December 20, 1900, prints a report by Mr. Seymour Bell, British commercial agent at Washington, D. C., on the use of labor-saving devices in American factories. Mr. Bell states that "anyone visiting American factories cannot but be struck by three things which are very conspicuous. They are: (a) The way in which machinery is used, and all sorts of devices are employed in order to save, wherever possible, manual labor; (b) the division of labor; and (c) the methods employed for handling large quantities of material. Probably in no country in the world is the principle of division of labor carried out to a greater extent, or with greater success, than it is in the United States. That the results obtained justify the theory is too evident, everywhere, to be disputed. It is only necessary to visit, for instance, a musical-instrument fac-

At the census of 1880 the system of interchangeable mechanism, so called, which is distinctively and peculiarly American in its origin, was made the subject of a special and exhaustive report, compiled under the direction of Prof. W. P. Trowbridge, of New York. In transmitting this report Professor Trowbridge said:

"The general growth of the 'interchangeable system' in manufacturing has had an influence in the development of manufacturing, agricultural, and other industries which but few have heretofore appreciated. It may not be too much to say that, in some respects, this system has been one of the chief influences in the rapid increase in the national wealth. Two of the great industries, which constitute the basis of this wealth—agriculture and manufactures—depend now largely upon the existence of this remarkable feature in manufacturing, which has reached its highest development in this country. The growth of the system is due to the inventive characteristics of our people, and their peculiar habit of seeking the best and most simple mechanical methods of accomplishing results by machinery, untrammeled by traditions or hereditary habits and customs."

Causes for Localization of Manufacture

2.[1] *The Causes of Localization.*—Seven of the various advantages which give rise to the localization of industries may be stated as follows: 1, nearness to materials; 2, nearness to markets; 3, water-power; 4, a favorable climate; 5, a supply of labor; 6, capital available for investment in manufactures; 7, the momentum of an early start.

All of these advantages except the last operate to prescribe the broad area within which an industry is economically possible. The exact point within this area at which it shall be actual—i. e., the center of localization—is usually the result of a more or less chance decision made in the early days of the region's settlement by some pioneer in the industry. Once successfully started, the manufacture gains a momentum which enables it to persist in the original locality long after the earlier general advantages it possessed have disappeared. The industries shown in tables LXXVII to CXXXVI[2] were selected partly because their localization illustrates the advantages here mentioned. It should be noticed, however, that in almost every case,

tory, and see the thousands of instruments that are being made, and the millions of small pieces being handled which are necessary to complete them; or, again, a boot factory where some 400 hands are turning out as many as 3,000 pairs of boots and shoes a day."

[1] *Twelfth Census, vol. vii, Manufactures,* part i, pp. ccx-ccxiv.

[2] Editor's Note.—The industries concerning which the generalizations drawn in this selection were made are agricultural implements; boots and shoes (factory product); collars and cuffs; cotton goods; fur hats; glass; hosiery and knit goods; iron and steel; jewelry; leather gloves and mittens; leather tanned, curried, and finished; paper and wood pulp; pottery; terra-cotta and fire-clay products; silk and silk goods, slaughtering and meat packing.

several of the above causes may be assigned, the actual localization being thus often a resultant of forces which act in nearly opposite directions.

Nearness to Materials.—The localization of several of the industries included in the above tables illustrates this advantage—the paper industry near the spruce and poplar forests; the tanning industry near the chief tanning materials; slaughtering and meat packing near the stock-raising centers; the manufacture of agricultural implements near the great hard-wood forests and the iron-producing centers; the pottery industry near its clay; the recent growth of cotton manufacturing near the cotton fields; and the beginnings of shoe manufacturing in Massachusetts near the supply of leather. Other striking illustrations of the effect of materials upon localization are shown in tables CXXXVII and CXXXVIII, from which it appears that, measured by the value of products, 64.4 per cent of the oyster canning and preserving was carried on in Baltimore; 48.1 per cent of the coke was manufactured in the Connellsville district; 22.7 per cent of the chewing and smoking tobacco and snuff was manufactured in St. Louis; and 15 per cent of the fruit and vegetable canning and preserving was done in Baltimore.

Fuel is regarded, for census purposes, as a material of manufacture, and the influence of its supply is very marked in the localization of the glass industry near the natural-gas wells, and in the iron industry in Pennsylvania and Alabama.

Nearness to Markets.—This is an important factor in the localization of all industries, its influence upon the localization of manufacturing in general being especially apparent. Nearly 48 per cent of the manufacturing of the country is in Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania—not so much because there is better waterpower or more abundant material for manufactures in these states, but very largely because the greatest population was there when the manufacturing developments of the country began. The influence of the market in causing a migration of manufacturing in general may be observed by comparing the movement of the center of manufactures and of the center of population since 1850. . . . The center of manufactures has moved steadily westward, following roughly the movement of the center of population.

Eight of the above 15 selected industries are localized east of the Alleghanies chiefly because they became established in this section at a time when it was the only important market in the country. In certain of these industries the influence of the market upon the localization has been especially marked, i. e., the iron and steel industry in Illinois, the manufacture of agricultural implements, the paper and pulp manufacture, and the jewelry and silk industries.

Nearness to materials and nearness to markets, in so far as these expressions are used with reference to an effect upon localization, mean more than mere geographical distance. They include the general

accessibility to materials or markets, affected as this is by the supply or lack of good and cheap means of communication. Waterways have thus had a tremendous influence upon the localization of industries, for they have allowed localities through which they passed to make an early start in manufacturing, and by the momentum thus acquired to retain their prominence in many cases, even after the building of railroads has removed the special advantages which they at first possessed.

It is evident, moreover, that the importance of the two advantages just explained varies greatly among the several industries according as their products are easily and cheaply transportable or are transported only with great difficulty and at a great expense. In all industries where the product is not transportable, such, for example, as the construction of houses, the market controls the localization absolutely. It is plain, also, that the power of materials and market over industry is less, just in proportion as the materials and products are more easily and more cheaply shipped. From the manufacturer's standpoint it is always a counting of the costs of shipment. If these are heavy, the industry tends to locate where the amount of transportation will be least, but if they are light, the influence of materials and market is so slight that it often disappears altogether. The words "heavy" and "light," as used in this connection, are not to be understood in an absolute sense, but relative to the value of the material or product transported. A cheap and heavy raw material, such as clay, will be carried only a very short distance. Transportation charges, after a few hundred miles, would constitute too large a part of the cost of manufacture. But an equal weight of this same clay after its value has been trebled by being converted into pottery might be carried a long distance before the shipping costs would become prohibitory.

The industries mentioned above as influenced largely by their market and the source of materials used—paper, iron and steel, slaughtering, pottery, and leather—are those in which the materials or products have a great weight or bulk in comparison with their value, and in which, therefore, freight charges are a very important element of costs.

Waterpower.—This has been in the past a very important advantage, but to-day its influence upon localization of industries is not very apparent. Naturally, this influence was greatest before the days of steam. All industries requiring power grouped themselves along those waterways which had a good natural fall. This early impetus, combined with forces to be described later, has tended to perpetuate such industries in their original locations, even when steam has become more important, as a source of power, than water.

It is interesting in this connection to compare the manufacture of cotton goods with the manufacture of shoes. Power has been applied to some branches of the cotton manufacture for more than a hundred years, while shoe manufacturing has been a power industry less than half that time. Largely as a result of this fact, water supplies 31 per

cent of the power used in the cotton industry to-day and but 4.6 per cent of that used in the manufacture of shoes. That is to say, the localization of both industries began in the early days, but the manufacture of shoes, being for years a hand industry, was independent of waterpower, while the cotton manufacture, of necessity, sought the waterways. When the necessity for power in the shoe manufacture arose, the industry was too thoroughly established away from the sources of waterpower, and recourse was had to steam. Waterpower has been an important factor in the localization of 3 of the other industries specified above—silk goods, hosiery and knit goods, and the pulp manufacture.

A Favorable Climate.—This has also an influence which is discernible in the localization of industries. The influence of a moist climate, which is also even throughout the day, upon cotton spinning in New Bedford and Fall River, Mass., has been mentioned above. More often, however, the advantage of a favorable climate makes itself felt through its invigorating effect on labor.

A Supply of Labor.—Two other advantages must be mentioned, for there are times when they have considerable weight. These are the supply of labor and the supply of capital and credit facilities. The "supply of labor" is something far from mobile. It is very human, with all the attachments of home and friends. It can be easily lured into a new industry which is established "at home" or near by, but the wages paid must be considerably greater to attract it into other sections. Manufacturing industries tend, therefore, to become established in a section where there is a good supply of labor. The New England towns have been preëminently of this type. All about them were farms which had reached the point of exhaustion, and could therefore employ profitably only a small part of the rising generation. The surplus labor thus created gravitated naturally to the nearest town in search of employment, and the early development of numerous manufactures was thus made easy. For a similar reason there can be no extensive manufacture in those parts of the West where the increasing population is mostly absorbed in agriculture which is still incompletely developed.

A Supply of Capital.—It is almost equally important to have a supply of local capital. Although most large enterprises are now financed from the great financial centers, the plants are located usually in places which have already become industrial centers in a smaller way through the efforts of the people there, and by means of their money. The cotton mills which are springing up through the South just now illustrate the tendency of a town to own itself in the early stages of its industrial life, and Fall River affords a most remarkable illustration of the perseverance of this tendency. A prosperous town, therefore, where the people are "making money," is, in so far, a favorable locality for the establishment of manufacturing industries of some sort. Outside capital will undoubtedly be solicited, but it will be

obtained more easily and more surely after the people themselves "have taken largely of the stock." Banking facilities exert a similar influence, making the community's capital more available for investment than it would otherwise be. All of these considerations have operated to favor the early development of manufacturing centers in New England and the Middle Atlantic states, agriculture absorbing a large share of the available local capital in the Southern and Western states. One of the causes which led to the establishment of the cotton manufacture in New Bedford about 1850 was the supply of local capital set free about that time by the decline in the whaling industry.[1]

The Momentum of an Early Start.—The various advantages which have been described thus far can be expressed in dollars and cents. The places possessing these advantages attract manufacturers on account of the comparatively low cost there of producing and marketing goods. But these advantages in almost all cases account for localization only in its broader sense. They prescribe an industry's possible area, but they fail to explain the most marked form of localization—that within a single city or town, or group of cities and towns.

Somewhere within the possible area—made such because of the advantages just described—an enterprising man started the pioneer establishment of a certain industry. Why was this place chosen rather than any other within the possible area? Or why was this industry chosen rather than any other for which this place was suited? This is the first problem, and the second follows naturally: Why, after the first factory had become established, was it to the advantage of competitors to choose the same spot for their establishments, rather than other localities within the possible area? The solution of the first problem in the case of any industry is to be found by reference to its early history in this country.

In most cases it will be found that the original establishment of an industry in a locality was largely a matter of chance. The shoe industry in Lynn, Mass., is a case in point. In the early colonial days this settlement had its quota of cobblers, who made as well as repaired the shoes for the region thereabout, but did not attempt a broader market. In 1750, however, John Adams Dagyr, a Welshman, and a skilled shoemaker, settled in Lynn, and began to teach his apprentices the art of fine shoemaking. It soon became known that shoes were being made in Lynn nearly as good as the best made abroad, and as early as 1764 Dagyr was spoken of in a Boston newspaper as "the celebrated shoemaker of Essex."[2] Had this man settled in Roxbury, Mass., rather than Lynn, the bias toward shoe manufacturing might have become established in that quarter, and Roxbury instead of Lynn might to-day be one of the three great shoe centers of the United States.

[1] *Report of the Industrial Commission,* vol. xiv, p. 535.

[2] *Lynn, Fifty Years a City,* p. 66.

The nature of many a city's industry has been shaped in just this way in the early days of its history by the decision of one man. Instances of this have been cited in the preceding paragraphs, in connection with the localization of collars and cuffs, hosiery and knit goods, jewelry, gloves, and fur hats.

The decision of the pioneer in an industry at a given point rests on various grounds. He establishes usually an industry with which he is familiar because of experience obtained elsewhere. Several of the above selected industries have been established in their respective localities by the emigration from Europe of individual skilled workmen or groups of skilled workmen. The town where such a man chances to settle is taken for a location of the industry in most cases without much questioning whether or not it is better adapted for it than any other town. But if he searches for a suitable place, his chance acquaintance with one locality, or the offer of a friend to assist him if he establishes there, often influences his decision at the expense of another and perhaps more suitable locality where he has never visited, or where no acquaintance appeared to offer inducements. In many instances towns offer inducements to manufacturers, such as exemption from taxation for a period of years, and such efforts have often been successful in building up an entirely new industry in the town.

But if the industry is to be perpetuated and to increase in the locality, the original establishment must succeed, for it is the influence of its success which causes other establishments to spring up around it. In the early history of every industry numerous enterprises fail, not so much because of the unfitness of the locality chosen, as because of the unfitness of the man who attempts to carry on the industry at that point.

The Habit of Industrial Imitation.—It is only after the first enterprise has succeeded in any locality, that the real localizing process begins. The mainspring of this process is the habit of industrial imitation—a habit as powerful as it is universal, and so important in this connection that it warrants a somewhat closer analysis.

It has been shown above that one of the normal requisites of an industrial locality is a good supply of local labor and local capital. Suppose the enterprising man establishes himself in such a community and succeeds there. His success proves that the economic conditions are favorable—that he is within the possible area of that industry. But it does more, it creates a local bias toward this particular industry. This bias affects all three classes necessary to its expansion: entrepreneurs, capitalists, and laborers.

In the first place entrepreneurs naturally choose the existing industry rather than establish a new one. On the assumption of a prosperous and growing town, there is continually arising a class of enterprising men who wish to embark in manufacturing for themselves, and they naturally choose an industry with which they are familiar—one which they have actually seen succeed. It requires courage to be an

industrial pioneer; more courage, in fact, than most men possess. They have read, perhaps, of much larger profits being made in branches of manufacturing not carried on in their neighborhood; they may have visited towns in another part of the country where some such industry has been very successful, and they are tempted to establish this industry in their town, rather than to imitate the establishment which has been operating there successfully. The chances are great, however, that they will resist the temptation of larger profits, in favor of what they regard as surer profits, and will choose the local industry. The other industry may be just as safe, but the probability of success if they follow the beaten path has been emphasized to them each day as they have watched the smoking chimney of the local factory, and have noticed the rise of the proprietor from moderate circumstances to comparative affluence. Their choice of this industry becomes, therefore, almost inevitable. Moreover, it is probable that the men who thus launch out for themselves have been employees or foremen in the local factory. They are relatives, perhaps, of the proprietor, and are familiar with all the details of this industry, while in any other they would have all to learn. This last feature has been illustrated in fully half of the industries specified above.

In the second place, the capital needed to finance the new establishment—in addition to that supplied by the new entrepreneur himself—is much more easily obtained if the new establishment is to produce the same line of goods as the one already in existence. If a loan is desired for the establishment of an outside and less familiar industry, there is naturally a raising of the interest rate as a means of insurance; or the stock, if offered for sale, will for the same reason sell at a lower figure.[1]

In the third place, the best grade of local labor prefers to have employment in an industry which seems to offer a future rather than in one which seems in the nature of an experiment. This influence is comparatively slight, however, for all ordinary labor takes such employment as is offered without much questioning.

Economic Advantages of Specialized Centers.—All the above decisions—the decision of the pioneer in the industry, and the decisions of the few who follow immediately in his steps—seem to be made with but little consideration of the economic advantages which the locality chosen may possess for carrying on the industry in question—i. e., the possibility of producing cheaper at this point than elsewhere, or being better able there to market the products. Very quickly, however, certain decided economic advantages emerge. Workmen, skilled in

[1] The opposition of the manufacturer or the manufacturers already established in the industry must, however, be counted on in many cases, especially if the products made are for sale in a comparatively limited market. As far as such opposition seems likely to develop, the advantage above described is counteracted, local investors becoming doubtful regarding the safety of their money under such circumstances.

the specialty for which the center begins to be known, flock there and wait their chance "to be taken on at one of the mills." In many cases an immigration of skilled labor from corresponding centers abroad sets in. East Liverpool, Ohio, was at one time chiefly an English town as the result of such immigration. A pool of specially skilled labor is thus formed which acts as a powerful inducement to the expansion of the industry from within, while at the same time it draws prospective manufacturers to this center from without.

The use of machinery has, however, tended to lessen the importance of a specially skilled labor supply. In proportion as an industry becomes automatic, its localization becomes independent of its supply of special labor. It is interesting to note in this connection that 6 of the 15 industries shown in tables LXXVII to CXXXVI, on account of their marked localization, are industries in which hand work constituted for many years the most important part of the operations. In some instances, such as the glove, collar, and hat manufacturing, hand work is still an important factor, while in the manufacture of boots and shoes hand work persisted to a large extent as late as 1870.

In a specialized community of this sort the contact of workmen and employers with each other results in a mutual improvement in manufacturing methods. Laborers "talk shop" more or less when not at work, and the devices adopted in one establishment for making the work easier are soon adopted in all. Similarly, it is easy for a manufacturer in such a place to note the experiments with patented improvements carried on in another establishment, and to adopt such improvements just as soon as their value is demonstrated, by paying the royalty demanded.

In the course of time another advantage arises in such a specialized center—the possibility of subdividing the processes of manufacture among several establishments—a division of labor among employers. In the Massachusetts shoe cities, for example, there are establishments which make only uppers, and others which make only "findings" (counters, shanks, heel stiffeners, etc.). Soon, also, subsidiary industries spring up for the supply of the special machinery and tools required. As a result, new and up-to-date tools and machinery may be had in such centers with the least possible delay, and existing machinery may be kept continually in repair.

Thus a town's specialization increases its supply of specialized labor and specialized machinery. These in turn react to increase the specialization of the town. Success breeds success in an almost geometrical ratio. Cause and effect propel each other in a continually expanding circle, the self-created local advantages becoming in time so powerful that they entirely neutralize the greater general advantages of location which other localities may have come to possess.

Conclusion.—In conclusion, it should be noted that in proportion as a country develops industrially and upon a larger scale; in proportion, moreover, as there is a mobility of labor and freedom from the

influence of inherited and over-conservative ideas, the localization of industries tends to be governed increasingly by purely economic considerations and less by the fortuitous considerations which accounted in many cases for localization in earlier years. The influence of industrial combination in this direction has already become marked. The system of uniform bookkeeping, introduced in many such combinations, enables managers to know accurately the comparative advantages of several localities for the industry in question, and to redistribute their production accordingly.

Growth of Manufacture (1849-1909)

3.[1] In 1810 the Secretary of the Treasury made a report on the condition of manufactures in the United States and estimated that the value of products for 1809 exceeded $120,000,000. An estimate based on the returns of the census of 1810 placed the value of products for the year covered by the returns at $198,613,471. Further efforts to secure statistics of manufactures were made in 1820 and 1840, but the results were more or less unsatisfactory. In 1830 no such attempt was made. The census of 1850 was the first to present fairly complete statistics for manufactures. Each census from that time to 1890 was based in part on returns for the preceding calendar year and in part on returns for other 12-month periods, mainly ending during the census year itself. The last three censuses have been based principally upon returns for the preceding calendar year or for some 12-month period ending within that year. In general, in this report the statistics for all censuses are referred to as of the year preceding that in which the census was taken.

The statistics of manufactures secured at the decennial censuses from 1849 to 1899, inclusive, covered the neighborhood, hand, and building industries, as well as the factory industries, while the reports for 1904 and 1909 were confined to factory industries. The statistics for 1899, although the canvass was made on the broader basis, have, for the purpose of comparison with later censuses, been reduced to the factory basis by eliminating, as far as possible, the neighborhood, hand, and building industries, but no such elimination is possible with respect to the earlier censuses. For this reason the statistics for years prior to 1899 are not entirely comparable with those for 1904 and 1909. Nevertheless, for the purpose of showing in a rough way the movement during each decade since 1849, Table 3 is presented. Two sets of figures are given in this table for 1899, the one including the neighborhood, hand, and building trades in order to make the data comparable with those for preceding censuses, and the other excluding them in order to make the figures comparable with those for later censuses. The values and wages for 1869 have been reduced to a gold basis, inasmuch as the figures as reported would, because of the

[1] *Thirteenth Census of the United States Taken in the Year 1910,* vol. viii, *Manufactures, 1909.* General Report and Analysis, pp. 32-33. Washington, 1913.

TABLE 3	Number of establishments.	Capital.
Factories and hand and neighborhood industries:		
1849 (census of 1850)	123,025	$533,245,351
1859 (census of 1860)	140,433	$1,009,855,715
Per cent of increase, 1849 to 1859	14.1	89.4
1869 (census of 1870) (gold value)	252,148	$1,694,567,015
Per cent of increase, 1859 to 1869	79.6	67.8
1879 (census of 1880)	253,852	$2,790,272,606
Per cent of increase, 1869 to 1879	0.7	64.7
1889 (census of 1890)	355,405	$6,525,050,759
Per cent of increase, 1879 to 1889	40.0	133.8
1899 (census of 1900)	512,191	$9,813,834,390
Per cent of increase, 1889 to 1899	44.1	50.4
Factories, excluding hand and neighborhood industries:		
1899 (census of 1900)	207,514	$8,975,256,496
1904 (census of 1906)	216,180	$12,675,580,874
Per cent of increase, 1899 to 1904	4.2	41.2
1909 (census of 1910)	268,491	$18,428,269,706
Per cent of increase, 1904 to 1909	24.2	45.4
Per cent of increase, 1899 to 1909	29.4	105.3

inflation of the currency at that time, exaggerate the increase from 1859 to 1869 and understate the increase from 1869 to 1879.

This table shows that, although the returns for 1849 included neighborhood, hand, and building industries and those for 1909 did not, nevertheless the value of products was over 20 times as great in the latter year as in the former and the number of wage earners employed nearly seven times as great.

As judged by the increase in the number of wage earners, the decade showing the most rapid growth was that from 1859 to 1869, during which the average number of wage earners increased 56.6 per cent. The decade 1879-1889 also showed an exceptionally high percentage of

Wage earners (average number).	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
957,059	$236,755,464	$555,123,882	$1,019,106,616	$463,982,734
1,311,246	$378,878,966	$1,031,605,092	$1,885,861,676	$854,256,584
37.0	60.0	85.8	85.0	84.1
2,053,996	$620,467,474	$1,990,741,794	$3,385,860,354	$1,395,118,560
56.6	63.8	93.0	79.5	63.3
2,732,595	$947,953,795	$3,396,823,549	$5,369,579,191	$1,972,755,642
33.0	52.8	70.6	58.6	41.4
4,251,535	$1,891,219,696	$5,162,013,878	$9,372,378,843	$4,210,364,965
55.6	99.5	52.0	74.5	113.4
5,306,143	$2,320,938,168	$7,343,627,875	$13,000,149,159	$5,656,521,284
24.8	22.7	42.3	38.7	34.3
4,712,763	$2,008,361,119	$6,575,851,491	$11,406,926,701	$4,831,075,210
5,468,383	$2,610,444,953	$8,500,207,810	$14,793,902,563	$6,293,694,753
16.0	30.0	29.3	29.7	30.3
6,615,046	$3,427,037,884	$12,142,790,878	$20,672,051,870	$8,529,260,992
21.0	31.3	42.9	39.7	35.5
40.4	70.6	84.7	81.2	76.5

increase in this respect, while the next largest percentage of increase was that for the decade from 1899 to 1909. The method of calculating the average number of wage earners for 1899 and subsequent censuses was different from that used for 1889; otherwise a somewhat greater increase would be shown in the table for the period 1889-1899. As respects value of products, the percentage of increase during the last decade exceeded that in any other except the decade from 1849 to 1859; but in value added by manufacture, which, as explained later, is more closely comparable from census to census than total value of products, the percentage of increase during the past 10 years falls below that from 1879 to 1889, as well as that from 1849 to 1859.

The absolute increases in the various items covered by the table during the decade from 1899 to 1909 were much greater than those during any other decade; the increase in value of products, in fact, was almost equal to the total value of all manufactured products in 1889.

Shift in the Textile Industry

4.[1] In the making of competitive cloths the New England mill is doomed. The Southern manufacturer enjoys a comparative advantage that averages about thirty per cent. The New England mill in competition with the Southern mill is "marginal"—that is, it must be content with a smaller profit in good times, and must reduce operations or close down altogether when depression overtakes the industry. There are agents and superintendents in the non-cotton growing States who stupidly shut their eyes to the facts. There are others who, with sufficient dread of the real situation, keep up an optimism by relying upon the well-established character of their manufacture and by reminding themselves of the traditional ingenuity of the Yankee in cutting corners. Still others, with disappearing profits in the last two years, have pressed their labor harder, only to find the workers rebelling. Finally, there is the large number of manufacturers, many of them presiding over the oldest and greatest establishments north of Mason and Dixon's line, who acknowledge defeat in the North and seek salvation by moving South.

In the last eleven months of 1923, a New England authority estimates, the spindles in place in the South increased by 518,000, while in the non-cotton growing States they decreased by 107,000. Massachusetts alone lost 35,000 spindles. The tide has turned. The old attitude towards the South has changed. It is not pretended that many New England manufactories will bodily move South. Geographical shifts in a great industry come less obviously, but no less certainly. What happens is that a Lowell or a Lawrence company in contemplating extensions looks only to the South. Or a visitor goes down an impressive alley of mills lining a century-old canal; though yardmen are about, and here and there a building vibrates with machinery, the leaves that have fallen from the elms and litter the vacant street seem somehow symbolic. Cloth that costs 34 cents per pound to manufacture here, costs the same company, in its Southern factory, only 22 cents. One mill makes as much as the other loses, and so the disadvantaged New England establishment continues to live on sufferance. But further along one comes to a great structure that is utterly silent. This plant has earned its capitalization several times over in better years, and now will never open as a cotton mill again.

As the cotton industry augments in the South, the South's differential of thirty per cent will be eaten into. Increased demand for South-

[1]Mitchell, Broadus, "Southern Spindles," *Yale Review*, xiv, April, 1925, pp. 506-508. Reprinted from the *Yale Review* by special permission of the Editors and Author.

ern sites and labor and cotton and power will raise manufacturing costs in the favored section. The newcomers will not invest so largely in paternalism as have their neighbors, the Southern mill men. They will look upon the native white population, accustomed to a low standard of living and untainted by "radical proclivities" or foreign blood, as an exploitable factor in the industrial calculus. The responsibility of the managers will be to themselves, and not, in the old Southern sincerity or the new Southern pretense, to the operatives. Gradually welfare work everywhere in the South will shrink, because in the new competition that will invest the Southern section, every dollar must be rendered immediately productive. Also, with increased wages and bettered standards of living, Southern operatives will demand money in their pay envelopes instead of seeing it spent in all sorts of social services. Trade unionism will strengthen its foothold in the South. As the industry is more and more concentrated in this section, labor organization, indeed, may become more nearly complete than it has been in the North, for there will no longer be a definitely non-union field to which the manufacturer may, as at present, transfer operations when pressed by his workers.

The South is now on a one-manufacture system as much as on a one-crop system. The worker's chances to assert himself are limited so long as there is only the cotton mill for him to go to. As it is at present, cotton mill wages cannot rise much above income on the land. But as more mills are built in the South, other branches of the industry besides spinning and weaving will be entered upon. Finishing plants will increase in numbers, and more machine shops will be set up. The supplying of power will grow in importance, and all the institutions of credit will expand, quickening industrial facilities all along the line. With alternate employments open to Southern workers, the cotton mill will have to offer higher and higher standards of remuneration, for it is agreed that little fresh labor remains to be conducted into factory employment, even under present conditions.

Hours of work permitted in cotton manufacturing will be shortened in the South as they have been in the North by state legislative enactment, whether to justify opposition to national interference, or whether in response to a more powerful and independent labor vote. Moreover, the unions will bend every effort towards shorter hours, and cotton mill managements will thus be influenced directly and through the necessity of meeting competition of other industries. And unionism will effectively oppose child labor, to protect standards of adults if not to prove humanity.

In a word, the cotton manufacturing South will lose its peculiarity. It will come to national standards. As the great seat of the industry, it will be responsible to the national conscience, no longer pleading, on grounds of sectional patriotism, for the leniency of a costly subsidy in exploited workers.

Recent Developments in the Light and Power Industry

5.[1] When electricity first came into use in the early 'eighties, it had to compete with gas, first for purposes of illumination and later for use in the industries. According to the latest census statistics [2] covering the whole United States, the income from the sale of electric current increased during a decade more than three times as fast as did the sale of gas at periods for which statistics are most comparable.

At first, central station managers did not have adequate appreciation of the importance of the power phase of their business. Most of their attention was given to the lighting business, and the national association through which they exchanged ideas was named the "National Electric Light Association." Even in the late 'eighties only a small minority of the members of this association had any real vision of the possibilities of the development of power, and at this time the association had no committee on power.

The development of high efficiency lamps helped to force many central station managers to give attention to the sale of power. Installation of high efficiency lamps within the decade following 1900 meant that many stations, which had depended almost wholly upon the sale of light, found themselves with a rapidly decreasing revenue. It is obvious that certain fixed expenses and a decreased kilowatt-hour consumption would not be a desirable combination. The reorganization, which high efficiency lamps forced in many central electric stations, was comparable to the changes which were brought about in the gas business when electricity was introduced. The gas companies, which had given most of their attention to lighting, discovered that they should turn attention to the sale of gas for industrial purposes.

IMPORTANT DEVELOPMENTS IN THE LIGHT AND POWER INDUSTRY IN RECENT YEARS

The changes which have taken place in the central electric station industry within the past 10 or 15 years are well reflected (1) in the large increase in the output of power as compared with the number of stations; (2) in the character of generating equipment; (3) in the number of communities served, compared with the number of stations; (4) in the number of companies located in one state and doing business in adjacent states; (5) in the increase in the number of stations which have no generating equipment or which use it only for standby purposes; and (6) in the percentage of total business which is confined to electric lighting.[3]

[1] Ruggles, C. O., "Problems in the Development of a Super-Power System," *Harvard Business Review*, vol. ii, no. 2, January, 1924, pp. 161-165. Used by permission of the editors and author.

[2] This is the census of "Central Electric Light and Power Stations" for 1917 and is the source used throughout this article, unless otherwise indicated. Unfortunately, the 1922 census of electrical industry is not yet available.

[3] The latest census return available for the electrical industries, that of 1917, shows that while the number of central stations aside from municipal plants in-

The shift in the light and power business to the use of alternating current helped to centralize the light and power business, because this shift made possible efficient transmission of electrical energy over long distances and facilitated the transformation and distribution at different voltages, which in turn adapted this source of power to a very wide variety of uses. Such a development in the electrical industry naturally caused many small generating plants either to scrap their generating equipment or to use it only for standby purposes.[1]

In the New England, Middle Atlantic, East North Central and Pacific divisions, there were very notable decreases in the number of plants which generated all their power in the decade 1907-1917. The income of stations shows a much greater increase for the large central stations than for the smaller ones. Further, it is a matter of common knowledge that there has been an enormous expansion in the area and in the number of cities which central stations serve at the present time. Space would not permit of an adequate statement of what this expansion has been even in the single state of Illinois. According to the census returns there were, even in 1917, 60 public utility companies with their generating equipment in one state and distributing a portion of their energy in one or more states. That the next census of the light and power business will show an increase in the number of such plants is obvious to those who have followed the events in this field during the past five years.

As would be expected, the utilization of water power which has resulted from increasing fuel costs has brought about centralization of hydroelectric plants to a more marked degree than has been true of other stations. This has been especially true in the northeastern part of the United States, along the Canadian border, in the Rocky Mountain region, and along the Pacific Coast.[2]

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creased during the decade ending at that time but 22%, the total gross income increased over 200%; that the horse-power of prime movers increased nearly 220%; that kilowatt capacity of the stations increased during the same decade 236%; and that the kilowatt-hours generated increased more than 337%. The number of stationary motors served increased during the same period over 210% and their horse-power capacity more than 443%.

[1] While the total number of stations having generating equipment increased but 16.8% during the decade 1907 to 1917, the number having no generating equipment increased in the same period over 472%. During the five-year period ending in 1917, there was an actual decrease of 2.5% in the number of commercial stations generating all their current, while the number of commercial stations purchasing all of their current for the same period increased 99.8%. For example, plants with a capacity under 200 kilowatts showed an increase in gross income of but 6.2%, while those with a capacity of 5,000 kilowatts and over showed an increase of over 330%. The facts also show that 4,224 plants served 11,349 communities, or an average of almost three places to each central station.

[2] The latest returns show that while the horse-power of prime movers in the hydroelectric plants increased by 84.7% and the total generator capacity increased 99.8%, the corresponding increase of all stations for the same period was but 71.8%

That this enormous expansion of the business of central electric stations never could have occurred, if their activity had been confined to the limits which most central station managers had set for their business in its early years, is obvious when it is seen what proportion of their output was used for electric lighting only. The last census shows that of the total electrical energy sold by commercial stations (not including municipal plants) but 18% was sold for light, a fair portion of which was for small motors and appliances; that over 51% was sold for power, and over 30% was sold "to other companies."

If we now look at conditions outside the central electric station business, it is possible to see where much of the increased output of electrical energy is being used. . . .

Examination of United States Census returns on manufactures indicates that since 1909, steam engines have been decreasing as a factor in the manufacturing business in the United States. In 1909 such power constituted 76.2% of the horse-power used in the manufacturing industries; by 1919 this had decreased to 57.8%.[1]

Likewise in mining there has been a marked increase in the amount of electric current purchased, while in most instances there has been a relative decrease in the amount generated by the various mining enterprises themselves.[2] It would probably be expected that such a

and 74.1% respectively. Likewise the number of kilowatt-hours generated by hydroelectric plants increased during the same period more than 138%, while for all stations it was little less than 120%. With but 5% of the number of all generating plants, the hydroelectric stations served 22% of the cities and towns and supplied 45.6% of the horse-power which was generated by all stations. The character of the business done by the hydroelectric plants has indicated that only 23.5% of the current which they sold was used for lighting purposes. That there is likely to be a substantial increase in the amount of electrical energy generated by hydroelectric stations in the near future is evidenced by the applications which have been made to the Federal Power Commission since its creation in 1920 for permission to develop water power. See address of O. C. Merrill, executive secretary, Federal Power Commission, before the National Electric Light Association, June 8, 1923.

[1] These figures are not quite accurate as they include steam turbines in 1909. See *Statistical Abstract of the United States, 1921,* p. 221.

[2] Examination of the facts shows that in the iron ore mining industry, while there was a decrease of 20.1% in the horse-power of prime movers used in this industry in the 10 years ending in 1919, there was during the same period an increase of more than 2,000% in the horse-power of electric motors operated by purchased current. The most marked change occurred in the Lake Superior region, where the horse-power of electric motors in 1909 amounted to less than one-tenth of 1%, whereas in 1919 it amounted to 26.9%. The extent of electrification in the industry as a whole is indicated by the ratio of the horse-power of electric motors of all classes (including those operated by current generated by the industry and by purchased current), to the horse-power of prime movers. This ratio in 1919 was practically 60%. For producing mines in the Northeastern region, the horse-power of all electric motors was about four-fifths that of prime movers, while the corresponding ratio in the Lake Superior region and in the Southeastern region was about four-fifths and about one-third respectively. In most of the metal mining industries the increase in the horse-power of motors operated by purchased elec-

change would occur in most mining enterprises other than that of coal mining. Taking the metal industries as a whole, they are now purchasing almost as much electrical energy as they are generating.

In the stone-quarrying industries, including limestone, granite, sandstone, basalt, slate, and marble, there was an increase of horse-power of motors operated by electricity generated by the industries themselves of 10.4% in the decade ending in 1919, while the corresponding increase for motors operated by purchased electricity was 416.8%.[1] In other words, the horse-power of motors in the stone-quarrying industries operated by purchased electricity was in 1919 more than eight times as much as the horse-power of motors operated by electricity which they generated. Even in coal mining it has been found that central electric stations can compete with the coal mines in the generation of electricity to be used at the mine.[2]

If all mining industries of every description in the United States be taken together, we had already reached the point in 1919 when the horse-power of motors operated by purchased electricity equaled over 56% of the total.

Report of the Tariff Commission of 1882

6.[3] The Commission has found itself face to face with the most practical questions within the range of national economics—the question

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tricity was greater than the increase in the horse-power of motors operated by electricity generated within the mining industries. The most marked increase occurred in the lead and zinc mining industry, in which the increase in the horse-power of motors operated by electrical energy generated within the industry increased but 89.9%, while the corresponding increase for motors operated by purchased current was 3,307.7%. This information in the *Fourteenth Census of the United states,* vol. xi, "Mines and Quaries."

[1] The most marked case was that of the marble industry, where the corresponding percentages were a decrease of 94% and an increase of 1,050.5%. Taking these industries as a whole, motors operated by electricity which they generated in 1919 had a horse-power of 19,210, while the corresponding figure for motors operated by purchased current was 156,870.

[2] It was at one time thought that central electric stations could not compete with coal mines in the generation of electricity to be used in the mine. It was believed that since the mine had the coal at hand, it would not be possible for a central station to pay transportation on the coal, build transmission lines to carry the electric current back into the mine, and be able to compete with the mine in the generation of electrical energy. But the unexpected has happened. The census returns show that in 1919 we had almost reached the point where the horse-power of motors operated by purchased electricity equaled that of motors run by current generated by the coal mines themselves, the figures being 888,824 and 893,064 respectively. If the bituminous coal mining industry be considered by itself the horse-power of motors operated by purchased electricity exceeded that of motors operated by electricity generated by the mines, the horse-power operated by purchased current being over 52%.

[3] *Report of the Tariff Commission Appointed under Act of Congress Approved May 15,1882, 47th Cong. 2d Sess., House of Representatives, Misc. Doc. 6, part i,* vol. i, pp. 4-6. Washington, 1882.

Editor's Note.—This Commission, entirely protectionist in its make-up, was headed

of the national revenue and the relations of the existing national industries with the labor depending upon them to the methods of collecting that revenue. The practical question presented to the Commission is that of reconciling the interests of revenue, including the considerations of its sufficient maintenance or possible reduction, with justice to the interests of the nation involved in the preservation of its industries and the security of its labor. The legislation to be recommended is for the present, and not for posterity, which must meet its own emergencies, and the determination of this question involves considerations of expediency not the least of which is that the measures recommended be such as shall be acceptable to the country and its representatives in Congress. It must accept the facts that discrimination in the imposition of import duties, a discrimination for the most part positive and avowed, and always, at least, with an incidental reference to the defense of the national industries, has been the policy of the country for generations; that in consequence of this policy thousands of millions of dollars have been invested in special pursuits; that the whole business of the country has been adjusted to the conditions of things growing out of this policy, and is inseparably identified with it; and that a subversive or radical change in the present economic system would throw labor out of employment, ruinously depreciate values, and create a general industrial and commercial disaster. With these views, with the unmistakable evidences of public opinion against radical changes, with the whole current of the testimony before the Commission in recognition of the necessity of preserving the general structure of our tariff system, with the clear sanction of the law creating this body and its injunction to render justice to all interests, the Commission has deemed it proper to limit its work to a revision, although a substantial revision, of the existing tariff.

The Commission, in making the existing tariff the basis of its work, has waived any attempt to construct a system upon an original and scientific basis, such as the tariff of France is said to be founded on, not only because such an attempt would have been presumptuous in the brief time at command, but because of the practical objections to such a course. If constitutions, as has been said, are not the creations of councils and legislatures, but the expression of the results of the slow and gradual growth of the political opinions of the people, how much more truly may it be said of a national tariff system like ours, that it is the result of the gradual growth of the necessities for the time, for each of the new industries, or interests of production, springing from year to year into existence, and each in its way securing by discriminating duties the national defense from undue foreign importations. A reference to the existing tariff, the gradual growth of

by John L. Hayes of Massachusetts, Secretary of the National Association of Wool Manufacturers. The fact that the Commission recommended a substantial reduction is a remarkable commentary on the existing tariff. See J. F. Rhodes, *From Hayes to McKinley,* p. 167 ff, and Ida Tarbell, *The Tariff in Our Times,* p. 101 ff.

generations of defensive legislation, to its discriminations, its phraseology, and its designations, has been found essential for preserving the general structure of the existing system, and although in some cases widely departed from, has always been kept in view by the Commission in the changes recommended. For the same conservative reasons the views of the authorized representatives and experts in the several industries in relation to objects of discrimination, phraseology, and designations have been carefully considered, and have had great weight with the Commission in determining the measures of revision to be recommended. In a theoretically scientific tariff scheme it would have been impossible to preserve the features of the existing system to which the business and industries of the country have become adapted.

While giving all the consideration implied in the foregoing statement to the interests affected by revision, in determining the rates to be recommended the Commission has been governed solely by its own views of justice, expediency, and a regard for the interests of consumers and the public sentiment of the country. Early in its deliberations the Commission became convinced that a substantial reduction of tariff duties is demanded, not by a mere indiscriminate popular clamor, but by the best conservative opinion of the country, including that which has in former times been most strenuous for the preservation of our national industrial defenses. Such a reduction of the existing tariff the Commission regards not only as a due recognition of public sentiment and a measure of justice to consumers, but one conducive to the general industrial prosperity, and which, though it may be temporarily inconvenient, will be ultimately beneficial to the special interests affected by such reduction. No rates of defensive duties, except for the establishment of new industries, which more than equalize the conditions of labor and capital with those of foreign competitors can be justified. Excessive duties, or those above such standard of equalization, are positively injurious to the interest which they are supposed to benefit. They encourage the investment of capital in manufacturing enterprise by rash and unskilled speculators, to be followed by disaster to the adventurers and their employés, and a plethora of commodities which deranges the operations of skilled and prudent enterprise. Numerous examples of such disasters and derangements occurred during and shortly after the excessively protective period of the late war, when tariff duties were enhanced by the rates of foreign exchange and premiums upon gold. Excessive duties generally, or exceptionably high duties in particular cases, discredit our whole national economic system and furnish plausible arguments for its complete subversion. They serve to increase uncertainty on the part of industrial enterprise, whether it shall enlarge or contract its operations, and take from commerce, as well as production, the sense of stability required for extended undertakings. It would seem that the rates of duties under the existing tariff—fixed, for the most part,

during the war under the evident necessity at that time of stimulating to its utmost extent all domestic production—might be adapted, through reduction, to the present condition of peace requiring no such extraordinary stimulus. And in the mechanical and manufacturing industries, especially those which have been long established, it would seem that the improvements in machinery and processes made within the last twenty years, and the high scale of productiveness which has become a characteristic of their establishments, would permit our manufacturers to compete with their foreign rivals under a substantial reduction of existing duties.

Entertaining these views, the Commission has sought to present a scheme of tariff duties in which substantial reduction should be the distinguishing feature. The average reduction in rates, including that from the enlargement of the free list, and the abolition of the duties on charges and commissions, at which the Commission has aimed, is not less on the average than 20 per cent., and it is the opinion of the Commission that the reduction will reach 25 per cent. The reduction, slight in some cases, in others not attempted, is in many cases from 40 to 50 per cent. The actual amount of the total reduction cannot be stated with precision, partly from want of time to make the calculations required for such details in the brief period intervening between the final determination in particular cases and the preparation of this report; and there is no exact standard by which to estimate the amount of reduction in revenue, on account of the varying character, amount, and prices of commodities in the importations of different years. If the reduction reaches the amount at which the Commission has aimed, and if there is any truth in the allegation of the opponents of the present economic system, that a duty on articles such as are produced in this country, whether in manufactures or agriculture, enhances the price to the consumer, not only of what is imported, but of the whole domestic production, to an amount of which the duty is a measure, the reduction proposed by the Commission would benefit consumers to the extent of hundreds of millions of dollars. As the amount of reduction cannot be stated with precision, it follows that no statement can be safely made as to the effect of the proposed reduction upon the total volume of the revenue from import duties. The amount of the reduction in the total volume of the revenue could be stated absolutely only by showing the income that would be lost by the enlargement of the free list. Although the free list is considerably enlarged in the scheme proposed, this list has already been so enlarged by previous legislation (to such an extent as to embrace nearly one-third in value of the merchandise imported in 1881) that little room is left for reform in this direction. It is probable that the reduction of the total volume of the revenue would not be proportionate to the reduction of the duties, for the reason that the reduction may, temporarily at least, increase importations, and greater revenue for a time may result from the lower duties.

The Mills Report, 1888

7.[1] Mr. Mills, from the Committee on Ways and Means, submitted the following report (to accompany bill H. R. 9051).

The Committee on Ways and Means, to whom was referred the annual message of the President, calling the attention of Congress to the large surplus now in the Treasury, daily growing larger on account of the excess of receipts over expenditures, have given to the subject that careful consideration which its importance demands, and in response to his recommendations beg leave to report to the House a bill to prevent the accumulation of surplus revenue by reducing the present excessive and unjust rates of taxation imposed upon the people.

Our revenues for the fiscal year ending June 30, 1887, amounted to $371,403,277.66, while our expenditures for the same time, including interest and sinking fund for the public debt, amounted to $315,835,-428.12; leaving a surplus of $55,567,849.54 over and above all requirements for current expenditure. The receipts for the current year up to March 1 amounted to $253,905,890, and the estimates for the remaining four months are $136,094,110; making total receipts for the year $390,000,000. The expenditures for the current year to March 1 amount to $180,549,915, and the estimates of expenditure for the remaining four months amount to $128,405,085; making a total of expenditures of $309,000,000; leaving a surplus of $81,-000,000.

As our customs and internal taxes are levied on articles which go into consumption, we may expect our revenues to increase with the increase of consumption, which must keep pace with the growth of population and wealth. On the other hand, with an honest and economical administration of public affairs, our annual expenditures may be expected to decrease. The large surplus now in the Treasury, which it is estimated will exceed $150,000,000 by the 1st day of July next, together with such as may thereafter be in the Treasury, may be applied to the reduction of the debt and the payment of annual interest charge on the same.

It is, then, safe to say that the above surplus, together with the yearly purchase of bonds required by law for the sinking fund, which is an expenditure included in the annual estimates of expenditures, and not in the estimate of the surplus, will extinguish by the date of their maturity in 1891 all the outstanding 4½ per cent bonds, amounting at this time to $234,427,250, and still leave over $60,000,000.

With receipts growing larger and expenditures growing smaller, we

[1] *Customs Tariffs Senate and House Reports 1888, 1890, 1894, 1897, 60th Cong., 2nd Sess., Senate Doc. No. 547,* pp. 15-18.

Editor's Note.—This report of Roger Q. Mills, chairman of the Ways and Means Committee of the House of Representatives, accompanied the "Mills Bill" which lowered the tariff according to the suggestion of President Cleveland and introduced the "Great tariff debate of 1888." J. F. Rhodes, *From Hayes to McKinley,* pp. 317-318, and F. W. Taussig, *Tariff History of the United States* (7th ed., 1923), p. 252 ff.

must soon gather into the Treasury the larger part of the circulation of the country, to the great injury of its business and the bankruptcy of many of its people. Some method must be adopted by Congress to prevent the congestion which must occur under existing laws.

There are two ways in which this excessive accumulation may be prevented. We may reduce taxation to the level of expenditures and leave in the pockets of the people all moneys not needed for public purposes, or we may raise expenditures to the height of taxation, seeking out new and useless objects of appropriation on which to lavish the great and growing revenues, not needed for any legitimate wants of the public service.

If we adopt the latter course, these very objects of useless expenditure will gather upon Congress in such increasing numbers and with such growing demands as to fasten upon the Government a permanent and unchangeable policy of extravagant and reckless appropriations.

The policy once adopted will not only breed corruption in public life and demoralization in private life, but will compel, in periods of depression, an increased rate of taxation for the people or an increase of bonded debt for the Government.

There is but one safe course, and that is to reduce taxation to the necessary requirements of an honest, economical, and efficient administration of Government. Having determined upon this course as the one which a wise and just policy demands, we are confronted with the question, Upon what articles shall the reduction be made? Shall we leave our import duties as they are and repeal the internal-revenue taxes on alcoholic liquors and tobacco? Or shall we leave the internal-revenue tax as it is and make the reduction on imports alone? Or shall we reduce the taxes on both?

The committee have determined to recommend a reduction of the revenues from both customs and internal taxes. They have given the whole subject a careful and painstaking examination, and in the revision of the schedules have endeavored to act with a spirit of fairness to all interests. They have carefully kept in view at all times the interests of the manufacturer, the laborer, the producer, and the consumer.

. . . . . .

In the progressive growth of our manufactures we have reached the point where our capacity to produce is far in excess of the requirements of our home consumption. As a consequence, many of our mills are closed, and many of those still in operation are running on short time. This condition is hurtful to the manufacturer, to the laborer, and producer of the materials consumed in manufacture. The manufacturer loses the profit on his capital, the laborer loses his wages, and the producer of the materials consumed in manufacture loses the market for his products. Manufacturers, in many instances, to guard against losses by low prices caused by an oversupply in the home market, are

organizing trusts, combinations, and pools to limit production and keep up prices. This vicious condition of business could not exist with low duties, but is the legitimate outgrowth of prohibitory duties on imports. Prohibitory tariffs surround the country with lines of investment and prevent all relief from without, while trusts, combinations, and pools plunder the people within.

In a country like ours, prolific in its resources, where the rewards of labor ought to be large, the capitalist may by such methods keep his investments secure and still make profits, but what is to become of the laborers who are thrown out of employment by stopping the wheels of machinery and limiting the amount of product? And what is to become of the producer of the materials to be consumed by the manufacturer? When the fires are shut off, the laborer and the materials are shut off at the same time, and the market for both is gone; whether they labor in the factory or the field, whether they produce cotton, wool, hemp, flax, coal, or ore; whether the product of their daily labor is cloth, iron, steel, boots, or shoes, they must have constant employment to obtain for themselves and families the necessaries and comforts of life.

When out of employment, with earnings cut short, with low prices for their products caused by the closing of the market, they still must pay for whatever their daily wants require the prices which the trusts have fixed. What is the remedy for this wrong? It is more extended markets for the sale of our products, and a constant and active competition in business. With active competition combinations and pools are impossible. With the markets of the world open to us our manufacturers may run their mills on full time, give constant employment to their laborers, with a steadily increasing rate of wages. With the markets of the world open to the sale of their products they will create an active and constant demand for all the raw materials required in manufactures, which will stimulate, promote, and reward the wool-grower and the producer of cotton, hemp, flax, hides, ores, and other materials of manufacture. We are the largest producers of cotton in the world, we are second in the production of wool, we put on the market annually quantities of hemp and flax, and our country is full of ores and coal. What we need is manufactures enough to consume all the annual product of these materials, and create an active demand for them, so that all our workmen may be constantly employed and receive high prices for their labor.

To accomplish this our manufacturers must have markets for the sale of their wares, and these markets are to be found in foreign countries as well as at home. To take the foreign market from the foreign manufacturer, we must produce our goods at a lower cost than he can. The principal elements of cost are labor and material. In many of our manufactures the labor cost is lower than in any country in the world, and if the cost of materials were as low here as in foreign coun-

tries we could produce our goods more cheaply than they, and largely increase our exports to foreign markets.

The annual product of our manufactories is now estimated at $7,000,000,000, of which amount we export only about $136,000,000, or less than 2 per cent. If we could obtain free of duty such raw materials as we do not produce and can only be procured in foreign countries, and mix with our home product in the various branches of manufacture, we could soon increase our exports several hundred millions. With untaxed raw materials we could keep our mills running on full time, our operatives in constant employment, and have an active demand for our raw materials in our own factories. If there should be no duty on any materials entering into manufactures many articles now made abroad would be made at home, which, while it would give more employment to our own labor, would give a better market to many articles which we produce and which enter into manufactures, such as cotton, wool, hemp, flax, and others.

The Wilson Report, 1893

8.[1] Mr. Wilson of West Virginia, from the Committee on Ways and Means, submitted the following report to accompany H. R. 4864:

The Committee on Ways and Means, to which have been referred sundry House bills imposing or regulating custom duties upon articles imported into the United States from other countries, have prepared and herewith present a bill which contemplates a general revision, reduction, and simplification of our system of import duties, and submit it with the following explanatory statement:

The American people, after the fullest and most thorough debate ever given by any people to their fiscal policy, have deliberately and rightly decided that the existing tariff is wrong in principle and grievously unjust in operation. They have decided as free men must always decide, that the power of taxation has no lawful or constitutional exercise except for providing revenue for the support of Government.

Every departure from this principle is a departure from the fundamental principles of free institutions and inevitably works out a gross inequality in the citizenship of a country. For more than thirty years we have levied the largest part of our Federal taxes in violation of this cardinal truth, until we have reached in the existing tariff an extreme and voluminous system of class taxation to which history may be challenged to furnish any parallel. So many private enterprises have

[1] *Customs Tariffs Senate and House Reports 1888, 1890, 1894, 1897, 60th Cong., 2nd Sess., Senate Doc. No. 547,* pp. 281-284, 287.

Editor's Note.—William L. Wilson, of West Virginia, chairman of the Ways and Means Committee of the House of Representatives, introduced the bill later revised by the Senate and popularly known as the Wilson-Gorman Tariff. This tariff Cleveland denounced as a piece of "party perfidy" and allowed it to become law without his signature. F. W. Taussig, *Tariff History of the United States* (7th ed., 1923), part ii, chap. vi, and J. F. Rhodes, *From Hayes to McKinley,* pp. 418-424.

been taken into partnership with the Government; so many private interests now share in the rich prerogative of taxing seventy millions of people, that any attempt to dissolve this illegal union is necessarily encountered by an opposition that rallies behind it the intolerance of monopoly, the power of concentrated wealth, the inertia of fixed habits, and the honest errors of a generation of false teaching.

The bill on which the committee has expended much patient and anxious labor is not offered as a complete response to the mandate of the American people. It no more professes to be purged of all protection than to be free of all error in its complex and manifold details. However we may deny the existence of any legislative pledge or the right of any Congress to make such pledge for the continuance of duties that carry with them more or less acknowledged protection, we are forced to consider that great interests do exist whose existence and prosperity it is not part of our reform either to imperil or to curtail. We believe, and we have the warrant of our own past experience for believing, that reduction of duties will not injure, but give more abundant life to all our great manufacturing industries, however much they may dread the change. But in dealing with the tariff, as with every other long-standing abuse that has interwoven itself with our social or industrial system, the legislator must always remember that in the beginning temperate reform is safest, having in itself "the principle of growth."

A glance at the tariff legislation of our own country ought to satisfy every intelligent student that protection has always shown its falsity as a system of economy in its absolute failure to insure healthy and stable prosperity to manufactures. It teaches men to depend on artificial help, on laws taxing their countrymen, for prosperity in business rather than upon their own skill and efforts. It throws business out of its natural channel into artificial channels where there must always be fluctuation and uncertainty, and it makes a tariff system the football of party politics and the stability of large business interests the stake of every popular election. None have recognized this truth more fully than the wiser men who from time to time have engaged in the so-called protected industries.

Years ago Mr. Edward Everett stated, in an oration at Lowell, that the sagacious men who founded the manufactures of New England were never friends of a high-tariff policy. The Hon. Amasa Walker, a former member of this House from Massachusetts, and one of our foremost writers on economic questions, declared it to be within his own personal knowledge that when the proposal was made to impose the protective tariff of 1816, the leading manufacturers of Rhode Island, among whom was Mr. Slater, the father of cotton spinning in this country, met at the counting room of one of their number, and, after deliberate consultation, came unanimously to the conclusion that they had rather be let alone; their business had grown up naturally and succeeded well, and they felt confident of its continued prosperity,

if let alone by government. They argued that by laying a protective tariff their business would be thrown out of its natural channels and subjected to fluctuation and uncertainty. But, as usual, the clamor of selfish and less farsighted men, and the ambition of lawmakers to usurp the place of Providence prevailed. The country entered on a protective policy with the unfailing result that government help begot a violent demand for more government help. The moderate tariff of 1816 rapidly grew into the "tariff of abominations" that carried the country to the verge of civil discord, and provoked a natural revulsion. Protection has run a like course since 1861.

When Congress began to repeal war burdens and to relieve manufacturers of the internal taxes, which they had used to secure compensating duties on like foreign products, there arose a demand throughout the country, without respect to party, for a reduction of the war tariff. Unable to resist this demand, the protected industries baffled and thwarted any reduction of consequence until 1872, when they defeated a House bill that did make a substantial reduction by substituting a Senate bill which carried a horizontal cut of 10 per cent. As soon, however, as the elections of 1874 gave the next House to the Democratic party, that reduction was repealed by the outgoing Republicans, and rates restored to what they were before 1872.

And although the demand for tariff reform and for reduction of taxes has ever since been a burning and a growing one in the country, the protected industries have exacted and received from every Republican Congress elected since 1874, an increase of their protection, occasionally permitting the repeal or the lessening of a tax that was paid into the Treasury in order to keep away from or to increase duties levied for their benefit. Protection left to its natural momentum never stops short of prohibition and prohibitory walls are always needing to be built higher or to be patched and strengthened.

A protective tariff never has and never can give stability and satisfaction to its own beneficiaries. Even if its victims are too weak or scattered to agitate for its decrease, those beneficiaries are sure to agitate for an increase. When the reform tariff of 1846 was before Congress the air was full of prophecies that it would destroy our manufacturing industries, throw labor out of employment, or compel it to work at pauper wages, and dwarf and arrest the prosperous growth of the country. Every representative of the four chief manufacturing States of New England voted against it with gloomy forebodings of its blighting effect. The rate of duties provided in that tariff was much lower than those of the bill we here offer. What was the result? Instead of paralyzing the industries and pauperizing the labor of New England and other sections of the country the tariff of 1846 gave immense vigor to manufactures, with steady employment and increasing wages to labor. So that after eleven years' experience under it (the longest period of stability we have ever enjoyed under any tariff), the representatives of the New England States, with practical unanimity,

voted for a further reduction of 20 per cent, and by a two-thirds vote sustained the tariff of 1857, which made a reduction of nearly 25 per centum.

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It could never have been intended that a Constitution which establishes perfect freedom of internal trade among the States should countenance laws that hold one section of the Union, however remote, tributary to other sections for the supply of those necessary materials whose location is ordained by natural law and not by human choice.

This House in two Congresses in recent years having, after full debate, passed laws putting wool upon the free list, it is not deemed necessary in this report to attempt a restatement of the reasons for doing so. It is enough to say that the tariff upon wool, while bringing no real benefit to the American wool grower, least of all to the American farmer, who, in any balancing of accounts, must see that he yearly pays out a good dollar for every doubtful dime he may receive under its operation, has disastrously hampered our manufacturing industry and made cruel and relentless war upon the health, the comfort, and the productive energy of the American people. Logs are already on the free list. We have gone a step farther and put undressed lumber generally on that list. This may serve to cheapen and improve the dwelling houses of some of our people, but it is justified if it shall accomplish nothing more than to delay the rapid destruction of American forests.

We have also placed hemp and flax, unhackled, on the free list, for the reasons stated above, that we may give to the American workingman untaxed material to work with, and that we may give the finished product as far as possible to the consumer with but a single tax, and that a moderate one, instead of a medley and cumulation of taxes gathered during the process of production. In addition to these so-called raw materials we have released from tariff duties certain important articles and manufactures which we have shown our capacity to produce more cheaply than any other country, such as pig copper and the important agricultural implements. Any article of manufacture which can sustain the competition of like foreign articles in other markets can defy such competition in the home market, and is not protected by the duty, but by its own intrinsic superior cheapness or quality.

Protest of the Minority Against the Wilson Bill

VIEWS OF THE MINORITY, SUBMITTED BY MR. MCKINLEY

9.[1] Mr. McKinley presents the views of the minority as follows:

[1] *Customs Tariffs Senate and House Reports 1888, 1890, 1894, 1897, 60th Cong., 2nd Sess., Senate Doc. No. 547,* pp. 30-31.

EDITOR'S NOTE.—William McKinley during most of his public life was an ardent advocate of high protection, and by this time was the leader of the protective group in Congress.

The extraordinary manner in which this bill came to the committee and the total lack of consideration given to so grave a measure by those charged with its investigation demand notice and comment. It was fashioned outside of the committee and reached it not by the reference of the House, which is the usual channel through which committees obtain jurisdiction of a subject. It was presented ready-made by the chairman of the committee, was framed, completed, and printed without the knowledge of the minority and without consideration or discussion in the full committee.

If any consultations were held the minority were excluded. Thus originating, after three months of the session had gone it was submitted to the committee. Since there has been no consideration of it. Every effort upon the part of the minority to obtain from the majority the facts and information upon which they constructed the bill proved unavailing; a resolution to refer the bill to the Secretary of the Treasury for a statement of its probable effects upon the revenue, together with a statistical abstract, which would facilitate its consideration by the committee and the House, was voted down by a strict party vote.

The industries of the country, located in every section of the Union, representing vast interests closely related to the prosperity of the country, touching practically every home and fireside in the land, and which were to be affected by the bill, were denied a hearing, and the majority shut the doors of the committee against all examinations of producers, consumers, and experts, whose testimony might have enlightened the committee. The farmers, whose investments and products were to be disastrously dealt with, were denied an opportunity to address the committee.

The workingmen of the country, whose wages were at stake, were denied audience. The Representatives on the floor of the House were not permitted to voice the wants of their constituents. Proposing a grave measure which would affect all of the people in their employments, their labor, and their incomes, the majority persistently refused the people the right of hearing and discussion; denied them the simple privilege of presenting reasons and arguments against their proposed action.

But as the bill is avowedly a political one, believed to represent, so far as it goes, the views of the President and his party associates, a bill which, with the President's free trade message, is to constitute the issue and be the platform of the party, these may account for, but will not justify, this extraordinary course of procedure. The minority protested without avail in the committee, and now announcing it to the House, as they feel constrained to do, accept the issue tendered by the bill, accompanied with some of their reasons for opposing it, and make their appeal from the people's servants to the people themselves.

The bill is a radical reversal of the tariff policy of the country which for the most part has prevailed since the foundation of the Government, and under which we have made industrial and agricultural

progress without a parallel in the world's history. If enacted into law it will disturb every branch of business, retard manufacturing and agricultural prosperity, and seriously impair our industrial independence. It undertakes to revise our entire revenue system; substantially all of the tariff schedules are affected; both classification and rates are changed. Specific duties are in many cases changed to ad valorem, which all experience has shown is productive of frauds and undervaluations. It does not correct the irregularities of the present tariff, it only aggravates them. It introduces uncertainties in interpretation, which will embarrass its administration, promote contention and litigation, and give to the customs officers a latitude of construction, which will produce endless controversy and confusion. It is marked with a sectionalism which every patriotic citizen must deplore.

Its construction takes no account of the element of labor which enters into production, and, in a number of instances, makes the finished or advanced product free, or dutiable at a less rate than the materials from which it is made. "The poor man's blanket," which the majority has made a burning issue for so many years, is made to bear the same rate of duty as the rich man's.

The Dingley Report, 1897

The Additional Revenue Required

10.[1] It will be seen that while the revenue from internal taxes has been well maintained, the annual revenue from duties on imports has declined over $60,000,000 since 1893, and nearly $80,000,000 compared with what Secretary Foster estimated in October, 1892, would be the revenue in 1894 under the tariff of 1890, on the basis of the increasing receipts of the year previous and the then existing conditions—conditions which were revolutionized by the result of the national election a short time after this estimate was made, as already explained.

If the customs revenue had continued to gradually rise after the opening of 1893 as it had before, or even if it had maintained the figures of the fiscal year 1893, the revenue would have been ample to meet all expenditures and the Government would have been spared the necessity, not to say the humiliation, of practically issuing bonds to meet deficiencies of current expenditures in time of peace.

The plain duty, therefore, of Congress—a duty emphasized by the President's message laid before the House on the opening day of this extraordinary session—is to so revise the tariff as to secure an increase of revenue from duties on imports substantially equal to what has

[1] *Customs Tariffs Senate and House Reports 1888, 1890, 1894, 1897, Senate Doc. No. 547*, pp. 349-350, 351, 352.

Editor's Note.—Nelson Dingley, Jr., of Maine, after whom the tariff of 1897 was named, was chairman of the Ways and Means Committee of the Fifty-fourth and Fifty-fifth Congresses. On the Dingley Tariff see F. W. Taussig, *Tariff History of the United States* (7th ed., 1923), part ii, chap. vii.

been lost, first, by the anticipated, and then by the partially realized, tariff reductions made by the act of 1894.

Adjustment of Duties to Secure Protection

Another imperative duty resting on this Congress is to so adjust duties in such a revision of the tariff to secure needed revenue to carry on the Government as will better protect the many industries which have so seriously suffered the past three years from unequal foreign competition, and from the consequent loss of purchasing power of the masses of the people, upon which the demand for products and the prosperity of every citizen depends.

The feasibility of uniting in a tariff both revenue and protective qualities has been amply demonstrated by the results of the protective tariffs in force from 1861 to 1893, at which latter date the tariff of 1890 was practically nullified by the anticipation of a revision on a nonprotective basis. The working of the wool and woolens schedule of the tariff of 1890 on a protective basis, and of the same schedules in the tariff of 1894 on an antiprotective basis, is exceedingly instructive on this point.

The importations of clothing wool in 1893, under the tariff of 1890 was about 40,000,000 pounds, and of manufactures of wool about $36,000,000—mainly goods worn by the well-to-do who think it the thing to wear foreign-made cloth and who are willing to pay the duties imposed upon it. From these importations of wool and woolens in 1893 the Government derived a revenue of about $44,500,000.

The importations of clothing wool in the fiscal year 1896 exceeded 127,000,000 pounds—three times as much as in 1893—and of manufactures of wool more than twice as many pounds in 1896 as in 1893; and yet the revenue derived by the Government from this enormous increase in the imports of wool and woolens in the fiscal year 1896 was only $23,000,000—a loss of $21,000,000 from that realized in 1893.

In other words, by placing wool on the free list and reducing the duties on manufactures of wool the Treasury lost $21,000,000 of revenue, our farmers lost a market for the 80,000,000 pounds of wool which they raised in 1892 in excess of what they raised in 1896-97, as well as nearly 10 cents per pound in price, involving a loss to them of nearly $30,000,000 per annum already on this one farm product, and our manufacturers and their workingmen lost a market not only for that which increased foreign imports had supplanted, but also a market for goods which the farmers and masses of the people were able to purchase in 1893, but which they could not buy in 1896 because of a loss of employment and purchasing power.

Beyond this it has been demonstrated that by placing wool on the free list to the injury of the farmer and manufacturer, we have not been thereby enabled to increase our exports of manufactures of wool (as it was claimed would be the case), and we have greatly increased

the use of shoddy by diminishing the purchasing power of the masses and thus compelling them to seek the cheapest cloths.

Restoration of the Duty on Wool

Enlightened by this experience, in revising the tariff with a view of securing both revenue and protection to our farmers, we have restored wool to the dutiable list at the same duty as it bore in the tariff of 1890 (11 cents per pound for the great mass of clothing wool in the unwashed condition, and a revenue duty of 32 per cent on carpet wools below 13 cents and 50 per cent above), and have made the compensatory duties the equivalent of these duties, so as to place the wool manufacturer on the same basis as to materials as his foreign competitor—which is necessary in order that the farmer may have a market for his wool—and have then given the manufacturer a compound duty largely converted into specifics equivalent to the 40 and 50 per cent ad valorem duties of both the tariff of 1890 and 1894.

Increase of the Duty of Sugar

We have increased the duty on sugar from the 40 per cent ad valorem imposed by the present tariff on raw sugars (now only nine-tenths of 1 cent per pound on raw sugars polarizing 96° on account of the decline of sugars, although about 1¼ cents when the tariff was enacted in 1894) to 1.63 cents, with a countervailing duty on all sugars equivalent to the net export bounty paid by any country, in order to increase our revenue and at the same time afford sufficient protection to enable our own farmers and planters to ultimately produce whatever sugar we may require for consumption. The production of cane sugar is a large and, under proper protection, a growing industry now.

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Range of Duties Proposed

In revising the several dutiable schedules as a rule the duties have been fixed at points between the tariff of 1890 and the present tariff, it having been found that, on account of changed conditions, in a large part of the articles duties lower than those of 1890 would be equally protective.

The metal and cotton schedules are in large part the same as in the present tariff, the increases above those rates being in the more advanced articles. The agricultural, earthenware and glass, and the silk, liquor, and wool and woolens schedules are substantially the same as in the tariff of 1890, the duties on fruit having been increased. The manufactured lumber which was put on the free list by the tariff of 1894 has been transferred to the dutiable list as an act of justice to this large industry and in the interest of revenue, with little change

in duties except on white pine, which has been restored to the duty of 1883.

The duty on wrapper tobacco has been restored to the rate of 1890, and the rate on filler tobacco increased, partly for purposes of revenue and partly to better equalize the duties on wrappers and fillers. The general policy pursued has been to raise the duties on luxuries.

While the duties on more than three-fourths of the articles on the dutiable list are lower than those provided in the act of 1890, yet converted into the delusive terms of ad valorems they will in many cases appear to be higher, notwithstanding that the actual rates are less.

Opposition of the Minority to Dingley Tariff

11.[1] Views of the Minority

[House Report 1, pt. 2, 5th Cong., 1st Session.]

PROPOSED REVISION OF TARIFF—REVENUE AND PROTECTION

March 22, 1897.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. Bailey, from the Committee on Ways and Means, submitted the following views of the minority (to accompany H. R. 379):

The undersigned members of the Committee on Ways and Means beg leave to submit the following as their views in reference to H. R. 379:

THE BILL TAKES FROM ONE CLASS AND GIVES TO ANOTHER CLASS

This bill was framed with the avowed purpose of protecting the manufacturers of the United States against foreign competition, and it is perfectly obvious that if it accomplishes that purpose it must result in compelling the consumers of this country to pay more for their manufactured goods; and for this reason we think it should not pass. We rest our opposition upon the broad principle that Congress was invested with the power of taxation as a means of collecting from each citizen his fair proportion toward the support of the Government, and that it is a gross perversion of that sovereign power to employ it as a means of enabling favored classes to levy unjust charges upon the great body of the people. We believe that after contributing his proper share toward the maintenance of the Government every citizen of this Republic is entitled to the full possession and enjoyment of all he can honestly earn; and we deny the right of Congress to make or enforce any regulation which requires one man to give any part of his honest earnings toward encouraging the enterprise or increasing the fortune of another.

[1] Presented in opposition to the Majority or Dingley Report, *Customs Tariffs Senate and House Reports, 1888, 1890, 1894, 1897, Senate Doc. No. 547,* pp. 355-358.

No man, however blind he may be, would defend a system of taxation under which the Government first collected the money and afterwards distributed it among its favorites. It is true that the tariff act of 1890 ventured to this extent in dealing with the sugar growers, but the disapproval of that policy was so overwhelming and so bitter that the advocates of protection have been forced to abandon it, and they have not dared to incorporate any provision for a direct bounty in the present bill. We are unable, however, to perceive any difference in principle between a law which requires the Government to collect the money and distribute it among the protected industries and a law which enables these industries to collect the money directly from the people. There may be some difference in the method of making the collection and in the cost of doing so, but there is no difference whatever in the principle involved. If the Government has the right to levy taxes upon the people for the purpose of inducing men to establish unprofitable industries or industries which can only be made profitable by compelling the consumers of the United States to pay exorbitant prices for their products, then the bounty system is a more direct and less complex way of attaining that end, and at least has the advantage of directness and simplicity.

The majority of the committee seem to think that taxation can be made a blessing and that the support of the Government, instead of being a burden upon taxpayers, can be made to enrich them. If this opinion is well founded, then all the struggles for freedom which have revolved around the question of taxation have proceeded upon a false theory; and the American colonists when they determined that they would not submit to taxation without representation indulged a mistaken zeal for liberty. The patriotic resolve of our forefathers not to use goods upon which Great Britain had laid an import duty was wrong if the argument for protection is right, because according to that argument the British importers were really paying the tax over which the American colonists went to war. There can not be found in the wide range of economic literature an authority, with the few and rare exceptions which only serve to emphasize the general concurrence, who does not treat taxation, direct or indirect, as a burden; and when we remember that a protective tariff not only collects more for the Government than is needed for its economical administration, but that it also enables favored classes to collect more than the Government itself, the injustice becomes so clear and so enormous that it would be a reflection upon the intelligence of the American people to suppose that it can escape their swift and decisive condemnation.

The Bill Encourages Extravagance

It follows as a matter of course that a bill based upon a vicious principle must be injurious in its effects, and perhaps no effect could

be more pernicious than the extravagance which the bill encourages. The tabulated statement embraced in the report of the committee shows that the bill is expected to raise $113,000,000 more revenue than was collected in customs duties during the last fiscal year; and yet, as is shown by the same report, the difference between the Government receipts and disbursements during that year was only $25,000,000. It is well known that the importations of last year were smaller than usual, owing to the general depression that existed in all circles; but even supposing that importations hereafter can be kept at a level with the importations of 1896, the bill will collect from the people more than $90,000,000 annually above the requirements of our present extravagant and wasteful appropriations.

It may be, however, that the majority should not be arraigned for their own encouragement of extravagance; because it can not be surprising that gentlemen who think that taxes are not a burden should feel that money derived from taxation ought to be lavishly spent. Nothing could better illustrate the vice of the protective system than the fact that there flows from it as a direct consequence the habit of treating the expenditure of public money as a benefit rather than as a burden to the people. It would be cause enough for complaint if the burden were the only result of the extravagance; but in a free government extravagance breeds tendencies of the most pernicious character. It not only teaches the people to look to the Government for the promotion of all kinds of enterprises, whether for pleasure or for profit, but it makes them impatient against public servants who believe in economy and who believe that public moneys are a trust fund to be jealously guarded.

An overflowing Treasury is a constant temptation to enter upon expenditures that corrupt both the public mind and the public's servants. Under a system of high taxes there must be a surplus or there must be waste, and both are serious evils. President Jackson hardly overstated the danger of a surplus when he declared that it was more dangerous than a standing army; and yet, dangerous as a surplus is, it is not so dangerous as the extravagance which is always resorted to in order to prevent its accumulation. It can not be forgotten that many of those who now advocate a high tariff and defend the extravagance which it engenders did not hesitate to denounce the administration of President Buchanan because in its last year the appropriations exceeded the sum of $60,000,000. Our population at that time was nearly half what it is to-day, and if the Government were now properly and frugally administered, our expenditures, including liberal pensions for the soldiers of the late war, ought not to, and would not, exceed the sum of $350,000,000.

The friends of the protective system know that to keep the taxes high they must find some way of spending the money which has been

collected. They perfectly understand that they can not resist the demand for a reduction of taxes if they permit their excessive collections to accumulate in the Treasury, because they understand that the dullest man knows that the Government is collecting too much when it is collecting more than it is spending. It is therefore the inevitable consequence of collecting more than is proper that improper ways should be devised for spending it. The extravagance which necessitates the billion-dollar appropriations which have become such a scandal upon Congress had its origin in the unjust system of levying taxes for the purpose of enabling private interests to prey upon the public through the favoritism of the law.

The Bill Fosters Trusts

If the system of unnecessary taxation is indefensible because of the extravagance which it encourages, it is still more so on account of the trusts which it fosters and promotes. It is not more certain that protection encourages extravagance than it is that it breeds unlawful combinations of capital. Indeed, protection is justified upon the avowed theory that competition should be restricted. True enough it assumes the patriotic pretense that foreign competition ought not to be permitted against our home industries; but they little understand the selfishness of human nature, and especially they little understand the selfishness of that human nature which relies upon the favoritism of the law to increase its fortune, who suppose that these men, having secured themselves against foreign competition by the favor of Congress, will fail to secure themselves against domestic competition by voluntary combinations among themselves.

It is an old adage, and it is as true as it is old, that "competition is the life of trade," and whatever tends to restrict competition must tend to restrict trade. The majority of the committee seem to think it an easy matter for us to build a tariff wall about our borders and thus prevent the foreigners from trading with us, but they forget that the same wall which shuts the foreigner out shuts us in, and that regulations to prevent the foreigner from trading with us must at the same time prevent us from trading with the foreigner.

We believe in the principles of competition, and we believe that the people of the United States can successfully compete against all other people of the world; and we denounce as a crime against the best interests of our people any law which leaves the consumers of this land subject to the exactions of reckless and corrupt combinations formed to destroy competition and control prices.

Labor

The report of the Committee on Ways and Means is singularly silent upon the old pretext that these high taxes are imposed for the benefit of American labor; and the silence may be taken as conceding

the Democratic contention that the intelligence and skill of the American factory operative are all the protection which he needs or desires. The labor argument of the protectionist can be reduced to an absurdity which makes it amazing that it should ever have been seriously advanced. To say in one breath that the welfare of labor depends upon its wages and that its wages in turn depend upon its skill and intelligence, and in the next breath to say that the very intelligent and highly skilled laborers of this country can not successfully compete with the ignorant and unskilled laborers of the Old World, is equivalent to saying that skill and intelligence are not of great advantage to the laborers who possess them. To our minds, it involves a contradition in history, as well as in economic theory, to hold that the factory labor of a civilized country needs protection against the factory labor of an uncivilized country. The fact that the unskilled laborers of a half-civilized country live more cheaply than the skilled laborers of a highly civilized country is more than counterbalanced by the greater productiveness of the skilled and intelligent laborer. If this view of the question needed further support than the mere statement of it, it can be found in those excellent works which assert that the skill and intelligence of the American laborer are such that he is able to produce seven times as much as the less skillful and less intelligent laborer of continental Europe and fifteen times as much as the ignorant and unskilled laborers of Asia. Surely it will be admitted that a productive capacity seven times as great as the one and fifteen times as great as the other should be all that the American laborer needs to protect himself against the competition of European drudges and Asiatic serfs.

Conclusion

We are unable to offer a substitute for the pending bill, because we have not been allowed a reasonable time to prepare one. Congress convened in extraordinary session on Monday the 15th day of March, and this bill was introduced the same day and referred to the Committee on Ways and Means, which met the next morning, and on Thursday it was ordered to be reported to the House. The majority of the committee had spent the three months of the last session of the last Congress in the preparation of their bill, and yet they refused to allow the minority three weeks in which to prepare a substitute. We are unwilling to propose a measure that has not been carefully matured, and we must therefore content ourselves with protesting against the passage of the committee's bill.

J. W. Bailey.
Benton McMillin.
Joseph Wheeler.
Jno. L. McLaurin.
S. M. Robertson.
Claude A. Swanson.

Taft's Winona Speech in Defense of the Payne-Aldrich Tariff

12.[1] On the whole, however, I am bound to say that I think the Payne tariff bill is the best tariff bill that the Republican party ever passed; that in it the party has conceded the necessity for following the changed conditions and reducing tariff rates accordingly. This is a substantial achievement in the direction of lower tariffs and downward revision, and it ought to be accepted as such. Critics of the bill utterly ignore the very tremendous cuts that have been made in the iron schedule, which heretofore has been subject to criticism in all tariff bills. From iron ore, which was cut 75 per cent, to all the other items as low as 20 per cent, with an average of something like 40 or 50 per cent, that schedule has been reduced so that the danger of increasing prices through a monopoly of the business is very much lessened, and that was the chief purpose of revising the tariff downward under Republican protective principles. The severe critics of the bill pass this reduction in the metal schedule with a sneer, and say that the cut did not hurt the iron interests of the country. Well, of course it did not hurt them. It was not expected to hurt them. It was expected only to reduce excessive rates, so that business should still be conducted at a profit, and the very character of the criticism is an indication of the general injustice of the attitude of those who make it, in assuming that it was the promise of the Republican party to hurt the industries of the country by the reductions which they were to make in the tariff, whereas it expressly indicated as plainly as possible in the platform that all of the industries were to be protected against injury by foreign competition, and the promise only went to the reduction of excessive rates beyond what was necessary to protect them.

The Ways and Means Committee of the House, with Mr. Payne at its head, spent a full year in an investigation, assembling evidence in reference to the rates under the tariff, and devoted an immense amount of work to the study of the question where the tariff rates could be reduced and where they ought to be raised with a view to maintaining a reasonably protective rate, under the principles of the platform, for every industry that deserved protection. They found that the determination of the question, what was the actual cost of production and whether an industry in this country could live under a certain rate and withstand threatened competition from abroad, was most difficult. The manufacturers were prone to exaggerate the injury

[1] *Tariff Speech Address of President Taft at Winona, Minn., September 17, 1909, 61st Cong., 2nd Sess., Senate Doc. No. 164,* pp. 4-5, 11.

Editor's Note.—The Payne-Aldrich Tariff, an early fruit of the Taft administration, was eyed critically by large numbers of Republicans as well as by Democrats. Taft's defense of it contributed to the rise of the Progressive bloc in Congress and to his own political downfall in 1912. See C. R. Lingley, *Since the Civil War* (2nd ed., 1926), pp. 533-534, and F. W. Taussig, *Tariff History of the United States* (7th ed., 1923), part ii, chap viii.

which a reduction in the duty would give and to magnify the amount of duty that was needed; while the importers, on the other hand, who were interested in developing the importation from foreign shores, were quite likely to be equally biased on the other side.

Mr. Payne reported a bill—the Payne tariff bill—which went to the Senate and was amended in the Senate by increasing the duty on some things and decreasing it on others. The difference between the House bill and the Senate bill was very much less than the newspapers represented. It turns out upon examination that the reductions in the Senate were about equal to those in the House, though they differed in character. Now, there is nothing quite so difficult as the discussion of a tariff bill, for the reason that it covers so many different items, and the meaning of the terms and the percentages is very hard to understand. The passage of a new bill, especially where a change in the method of assessing the duties has been followed, presents an opportunity for various modes and calculations of the percentages of increases and decreases that are most misleading and really throw no light at all upon the changes made.

One way of stating what was done is to say what the facts show—that under the Dingley law there were 2,024 items. This included dutiable items only. The Payne law leaves 1,150 of these items unchanged. There are decreases in 654 of the items and increases in 220 of the items. Now, of course, that does not give a full picture, but it does show the proportion of decreases to have been three times those of the increases. Again, the schedules are divided into letters from A to N. The first schedule is that of chemicals, oils, etc. There are 232 items in the Dingley law; of these, 81 were decreased, 22 were increased, leaving 129 unchanged. Under Schedule B—earths, earthen and glass ware—there were 170 items in the Dingley law; 46 were decreased, 12 were increased, and 112 left unchanged. C is the schedule of metals and manufactures. There were 321 items in the Dingley law; 185 were decreased, 30 were increased, and 106 were left unchanged. D is the schedule of wood and manufactures of wood. There were 35 items in the Dingley law; 18 were decreased, 3 were increased, and 14 were left unchanged. There were 38 items in sugar, and of these 2 were decreased and 36 left unchanged. Schedule F covers tobacco and manufactures of tobacco, of which there were 8 items; they were all left unchanged. In the schedule covering agricultural products and provisions there were 187 items in the Dingley law; 14 of them were decreased, 19 were increased, and 154 left unchanged. Schedule H—that of spirits and wines—contained 33 items in the Dingley law; 4 were decreased, 23 increased, and 6 were left unchanged. In cotton manufactures there were 261 items; of these 28 were decreased, 47 increased, and 186 left unchanged. In Schedule J—flax, hemp, and jute—there were 254 items in the Dingley law; 187 were reduced, 4 were increased, and 63 left unchanged. In wool, and manufactures thereof, there were 78 items; 3 were decreased, none were

increased, and 75 left unchanged. In silk and silk goods there were 78 items; of these, 21 were decreased, 31 were increased, and 26 were left unchanged. In pulp, papers, and books there were 59 items in the Dingley law, and of these 11 were decreased, 9 were increased, and 39 left unchanged. In sundries there were 270 items, and of these 54 were decreased, 20 were increased, and 196 left unchanged. So that the total showed 2,024 items in the Dingley law, of which 654 were decreased, 220 were increased, making 874 changes, and 1,150 left unchanged.

Schedule.	Items in Dingley law.	Changes in Dingley law by Payne law.			Unchanged.
		Decreases.	Increases.	Total changes.	
A. Chemicals, oils, etc.	232	81	22	103	129
B. Earths, earthen and glass ware	170	46	12	58	112
C. Metals, and manufactures of	321	185	30	215	106
D. Wood, and manufactures of	35	18	3	21	14
E. Sugar, molasses, and manufactures of	38	2	0	2	36
F. Tobacco, and manufactures of	8	0	0	0	8
G. Agricultural products and provisions	187	14	19	33	154
H. Spirits, wines, etc.	33	4	23	27	6
I. Cotton manufactures	261	28	47	75	186
J. Flax, hemp, jute, manufactures of	254	187	4	191	63
K. Wool, and manufactures of	78	3	0	3	75
L. Silk and silk goods	78	21	31	52	26
M. Pulp, papers, and books	59	11	9	20	39
N. Sundries	270	54	20	74	196
Total	2,024	654	220	874	1,150

The Fordney-McCumber Tariff, 1922

13.[1] Some positive factors were present which had not affected any of the previous revisions. Two had profound influence. The feeling for national self-sufficiency was intensified by the war; and the representatives of the agricultural West supported high protection with a vehemence never shown before.

The first of these is easy to understand. It showed itself in all countries after the war and everywhere served to strengthen and enlarge protection. Everywhere this nationalist feeling has intermingled confusedly with the cruder and more familiar phases of protectionism. The experiences of the struggle might easily lead a person who was without prejudice for or against free trade to accede to measures for securing, regardless of cost, a domestic supply of articles

[1] Taussig, F. W., "The Tariff Act of 1922," *Quarterly Journal of Economics*, vol. xxxvii (1922-1923), pp. 3-7. Reprinted by permission.

indispensable in war. The ordinary protectionist ignores or denies that the stimulation of domestic supply involves any increase of cost at all or any economic drawback whatever. He simply finds in these experiences a further argument for bolstering up every branch of domestic industry. The trend toward protection, strong enough before the war, became even more strong after its close.

The second factor, the attitude of our western agricultural regions, is more distinctly peculiar to the United States. Like the first it is an aftermath of the war; but in this case the influences at work were quite different from those of military fervor. The impelling force was the severe decline in prices from which the farmers suffered in 1920-21. They were hardest hit by the sharp industrial revulsion which began in the latter part of 1920. The prices of wheat, corn, meats, cotton, suddenly were cut to one-half, even to one-third of the war figures. The farmers were as helplessly ignorant concerning the cause of this decline as they had been concerning the previous rise. They clamored vociferously for a remedy. Their political representatives, hardly less at sea than the rank and file and eager to ferret out some sort of response to their constituents, turned to the tariff. All the popular debates of the last generation had inculcated the belief that the mere imposing of a duty served at once to benefit the domestic producer. In a time of distress this notion of the wonder-working effect of an import duty naturally led the leaders to propose, and the rank and file to welcome, immediate and drastic tariff changes. Early in the extra session of Congress (May 27, 1921), the "Emergency" act imposed high duties upon wheat, corn, meat, wool, sugar. It was originally passed with a provision that the duties should be in force for six months only, but was reënacted step by step and remained in effect until the final passage of the act of 1922. As a means of meeting the emergency of the time it was hardly more than an amiable gesture. The prices of the several products continued to decline; hardly a better proof could be found of the failure of tariff duties to serve as a remedy of immediate efficacy.[1]

But this Emergency act, negligible tho it was in its immediate effects, was of large consequence on the political situation and on the eventual character of the permanent tariff. By it the representatives of the agricultural states had committed themselves to a policy of high and even ruthless protection. They had got from the other states, and especially from the manufacturing sections, all they wanted—*carte blanche* to fix as they pleased the duties on manufactured articles, they could not easily oppose, as they had done in 1909, rates which seemed burdensome on the consumers. Thus no moderating influence was of avail in the 67th Congress. The Democrats were hopelessly

[1] See a report of the Tariff Commission on Operation of Rates in the Emergency Tariff Act, Senate Doc. No. 224, 67 Cong., 2nd Sess.

outnumbered, and even in their slender minority not a few were committed by having previously bowed to the agricultural clamor. Among the Republicans a word of protest was heard now and then, but was hardly listened to. That party, tho at bottom split into factions, came to agreement on the tariff more completely than on any previous measure of the same character, with the possible exception of 1909.

The outcome was a tariff with rates higher than any in the long series of protective measures of the whole period. It went beyond the acts of 1890, 1897, 1909. A return to high protection was inevitable after the election in 1920; but the special conditions of 1921-22 led to an extreme which few had thought possible.

Nor was this extreme application of protection due to haste or paroxysm. The act of 1922 had a legislative career unexampled for length. The Ways and Means committee of the House began hearings on the tariff as early as January, 1921; that is, in the old Congress, in anticipation of the coming change of administration. Its bill, further elaborated by the same committee of the new Congress, was introduced in the House on June 29, and passed by that body July 21. It was under discussion in the Senate for more than a year. The Finance committee of the Senate did not submit it to that body until April, 1922; it was passed by the Senate August 19. After the usual compromises in a Conference committee of the two Houses, it finally became law on September 19.

The Senate in most cases raised duties above the figures proposed by the House. This more extreme policy was due in part to the greater influence exercised by the states of the Far West, whose representation, small in the House, was large in the Senate. Hence it came to the fore most pronouncedly in the case of the agricultural commodities. In good part it was due also to the tradition of mutual concession and mutual support which senatorial courtesy has engendered. The senators, always in the habit of acceding to the wishes of their colleagues in what concerns the confirmation of presidential appointments, naturally yield on other matters also, and not least on this one of tariff rates on the products of their several states.

The details of the bill were settled, as usual in cases of disputed and complicated legislation, by the Conference committee of the two Houses. That committee of six members worked with feverish haste for about a fortnight, and submitted to the two bodies the bill in what was of necessity its final form. At this last stage of the legislative procedure no careful scrutiny is possible of the details of the compromises and readjustments made by a Conference committee. Barring an occasional disagreement on some matter of outstanding moment, the measure as elaborated in the committee must be accepted; the only alternative is to forego action once for all. A more vicious system for reaching a settlement could not well be imagined. The evil is an old one, rooted deep in our political system; nor is a remedy in sight.

Dumping

14.[1] There is another fact I am afraid our high-tariff friends have not sufficiently impressed on the people, and that is, that our protected manufacturers are selling their goods in foreign countries cheaper than at home, and that protection means that our people must be taxed to give higher prices to our manufacturers while they are exporting their goods and selling them to foreigners at prices far below those at which they are selling to us. This charge has been made repeatedly, and it has always been vehemently denied by protectionists, and it has been repeatedly proven to be true.

Senator Vest of Missouri, in his very able and instructive speech in the Senate a few days ago, placed the matter beyond controversy by producing a foreign edition of the *Mail and Export Journal* which contained the advertisements of 166 American manufacturing firms proposing to deliver their goods on board ship at New York at the prices mentioned by them in the paper. In the American edition they gave the price at which they proposed to sell to Americans. When the prices are compared they show the following differences:

	Foreign Prices	Home Prices
Advance plough	$9.00	$18.00
Advance plough	4.00	8.00
Hay tedder	30.00	45.00
Horse rake	17.00	35.00
Cummings feed cutter, No. 3	60.00	90.00
Ann Arbor cutter, No. 2	28.00	40.00
Clipper cutter	9.50	18.00
Sever cutter	4.25	8.00
Cultivator	22.00	30.00
Sweep	60.00	90.00

It will be seen from these prices that these articles are sold to our own farmers fifty to one hundred per cent higher than they are to foreigners. Beside these a great number of other articles are offered to foreigners at heavy discounts. In order more effectually to carry out this policy it is proposed in the pending bill, to refund to manufacturers all duties collected on materials which are imported and manufactured and exported, while compelling the American consumer to pay the last cent nominated in the bond. If it were intended by the bill to start and move toward free trade as fast as it could be approached, that policy might not be subject to severe criticism, but when it is resolved to inaugurate a policy to manufacture and sell to the foreigner on free trade principles, and to the home consumer at combination prices, it is time to draw the line.

[1] Mills, Roger Q., "Tariff Issues Plainly Stated," *Tariff Reform*, vol. iii, no. 14 (August 30, 1890), pp. 225-226. This magazine was published semi-monthly by Tariff Reform Committee of the Reform Club of New York City.

The Tariff Commission

15.[1] The growing desire in this country, however, that tariff making should be more scientific, and that Congress should have a permanent and reliable source of tariff information at its disposal, has led to the advocacy of a tariff commission. All the political parties have urged the creation of such a commission, and from time to time many bills have been introduced into Congress providing for its establishment. Even before any of them became law the country received the services of a tariff board, through the action of President Taft. President Taft was authorized by the Tariff Act of 1909 "to employ such persons as may be required" to assist him in carrying into effect certain provisions of that Act. He appointed three Republicans, and this board became the nucleus about which grew up the first genuine, although temporary, tariff commission this country ever had. Their first work was the administration of the maximum and minimum clause of the Payne-Aldrich Act. They then began the preparation of what Mr. Taft called the "glossary or encyclopedia of the existing tariff so as to render its terms intelligible to the ordinary reader." It also undertook the study of industrial conditions and the costs of production at home and abroad. In March, 1911, the board was increased by the addition of two Democratic members. Congress appropriated substantial sums for its work, and in a comparatively short time it published reports on chemicals, news-print paper, Canadian reciprocity, raw wool, manufactures of wool, and manufactures of cotton. In many ways the work of this board revealed the value and the need for a permanent tariff commission. Its investigations were conducted scientifically, and its experiences furnish many valuable suggestions for the new tariff commission in its work of organization and investigation.

The present Tariff Commission, established by an Act of Congress approved September 8, 1916, is the first permanent government body in this country whose sole purpose is the scientific examination of the tariff question. Its six members were appointed by the President in March, 1917, and it was organized for business on April 1, 1917.[2]

It is not the policy of the Tariff Commission to bolster up any particular tariff theory. It is strictly non-partisan. Its aim is to secure data which may be utilized both by the advocates of tariff for revenue and by the protectionists, but as a commission it advocates the policy of neither. It proposes to examine the effects of tariff rates from every angle. Its duties include the study of the fiscal effect of the customs laws and their relation to the Federal revenue. Customs

[1] Culbertson, William S., "The Tariff Commission and Its Work," *North American Review*, ccvii, January, 1918, pp. 57-58. Used by permission of the editors.

[2] The members of the United States Tariff Commission on the date of its organization were: F. W. Taussig, chairman; Daniel C. Roper, vice-chairman; David J. Lewis; William Kent; William S. Culbertson; and Edward P. Costigan.

duties have always been an important source of Federal revenue and, for this reason, the Commission may be expected not only to assist Congress in studying the revenue producing power of the tariff but also in suggesting how the income and expenditures of the Government may be properly correlated.

CHAPTER XIV

BUSINESS CONSOLIDATION

AMERICAN business since the Civil War has been characterized not only by tremendous growth, but by the consolidation of the units in the same or similar fields into great organizations which created in many cases conditions approaching monopoly. The early period of American manufacturing was the era of the small industry, but the growth in population and wealth led inevitably to the development of larger units. These units, which had grown rankly in the bracing atmosphere of *laissez faire*, found themselves, in the decades of the 'seventies, 'eighties, and 'nineties, engaged with one another in a competition so bitter that legitimate profits were destroyed and only the strongest and most unscrupulous seemed able to survive. It was during this period that business sought salvation by consolidation; that is, by an effort to bring into a single organization as many competing units as possible. In one form or another this process has continued from the decade of the 'seventies, when the railroads sought to save themselves by forming "pools," until the present day, when capital has entered the retail field by vast organizations of chain stores. It has resulted not only in the formation of the so-called "horizontal trust" which includes units of the same type, but the "vertical trust," which may include all departments of a manufacturing enterprise from the production of the raw material to its final disposal. This process, it should be noted, has been immensely speeded up by the inevitable consolidation of capital and by the desire for greater profits.

The process of business consolidation was no sooner well under way than an effort was made to halt it by state and federal legislation. The dangers and evils of unregulated railroad monopolies had long been felt by the farmers, and a public effort to curb them by federal regulation had been inaugurated by the Interstate Commerce Act of 1887. Three years later a similar effort was made to put an end to monopolies and conspiracies in restraint of trade by the Sherman Anti-trust Act of 1890 (1). The utter failure of the legislation of 1890 to halt the tendency toward business consolidation was recognized generally and the Wilsonian Democrats in 1914

made a second legislative effort. The Clayton Act (2) was much more explicit than the earlier legislation, and its enforcement was expected to be strengthened by the Federal Trade Commission Act of the same year (3), which set up a fact-finding body to investigate alleged monopolies and proceed against them, a body not unlike the Interstate Commerce Commission in its earlier years.

Hardly a decade had elapsed after the passing of the Sherman Anti-trust Act before the futility of that legislation was apparent. The famous Industrial Commission in its *Preliminary Report* of 1900 summed up the voluminous testimony taken before it by showing to what extent monopolies were controlling prices (4), by illustrating the evil of over-capitalization (5), but at the same time pointing out the advantages as well as the evils of combination (6). In the succeeding years various federal bodies investigated in detail specific industries. The Industrial Commission in 1902 showed the control of the railroads over the anthracite coal industry (7), the Bureau of Corporations (set up in 1903 as a subsidiary of the Department of Commerce and Labor) reported in 1907 on the tobacco industry (8), in 1911 on the steel industry (9), and in 1913 on the International Harvester Company (10). In the following year the Interstate Commerce Commission laid bare the history of the efforts of the New York, New Haven, and Hartford Railroad Company to effect a monopoly of New England transportation (11, 12, and 13), one of the most amazing revelations of high financing to be found in American history. At the conclusion of the war LaFollette carried the discussion a step farther by showing how the railroads themselves were further consolidated by banking control and alliance with equipment companies (14). Nor was the new Federal Trade Commission idle. Its report in 1919 on the Meat-packing Industry showed a successful effort on the part of the packers covering a long period of years to thwart the federal legislation (15 and 16). Coal strikes in the period after the World War led to another investigation of the coal industry and to a report by the United States Coal Commission in 1923, showing the essentially monopolistic features of the production of anthracite (17 and 18).

Not only was consolidation progressing rapidly in industry, but it became obvious to discerning students in the early years of the twentieth century that a similar concentration was taking place in the control of money and credit. John Moody in 1904 showed unmistakably how the capital resources of the country were concentrating around the Rockefeller and Morgan interests, and how capitalists, large and small, were drawn into one or the other of

these orbits, destined, he believed, eventually to merge into one (19). It seemed that a great super "money-trust" was developing which might control not only the capital resources of the nation, but the railroads and the various industrial combinations. When a committee of the House of Representatives, the "Pujo Committee," investigated the subject, they affirmed that this process had gone far, and asserted that the control of money and credit had been largely concentrated in the hands of five New York banking concerns or bond houses (20).

The Clayton Act, while more specific than the Sherman Anti-trust Act, has not been effective and the process of consolidation has progressed rapidly since the war. This has been especially notable in the field of retail selling, where great chains of grocery, drug, and five-and-ten-cent stores under a single management have spread widely in the rural districts as well as the cities (21). Of tremendous significance has been the effort to consolidate the electric power resources, and the opposition to unregulated private control of this great natural resource has been continuous if not successful (22).

Sherman Anti-trust Act, 1890

1.[1] An ACT To protect trade and commerce against unlawful restraints and monopolies.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Sec. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or be-

[1] The Federal Anti-trust Law. Act of July 2, 1890, 26 *Stat.*, p. 209.

tween any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney-General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decrees, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

Sec. 5. Whenever it shall appear to the court before which any proceeding under Section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpœnas to that end may be served in any district by the marshal thereof.

Sec. 6. Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

Sec. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

Sec. 8. That the word "person," or "persons," wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the

laws of any of the Territories, the laws of any State, or the laws of any foreign country.

Clayton Act, 1914

2.[1] SEC. 2. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly to discriminate in price between different purchasers of commodities which commodities are sold for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce: *Provided*, That nothing herein contained shall prevent discrimination in price between purchasers of commodities on account of differences in the grade, quality, or quantity of the commodity sold, or that makes only due allowance for difference in the cost of selling or transportation, or discrimination in price in the same or different communities made in good faith to meet competition: *And provided further*, that nothing herein contained shall prevent persons engaged in selling goods, wares, or merchandise in commerce from selecting their own customers in bona fide transactions and not in restraint of trade.

SEC. 3. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other commodities, whether patented or unpatented, for use, consumption or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, or fix a price charged therefor, or discount from, or rebate upon, such price, on the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies, or other commodities of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract for sale or such condition, agreement, or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

. . . . . .

SEC. 6. That the labor of a human being is not a commodity or article of commerce. Nothing contained in the anti-trust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully

[1] *The Federal Anti-trust Laws with Amendments*, pp. 14-15, 15-17, 17-19, 20, 27-28. Washington, 1922; *U. S. Stat.*, vol. xxviii, Part I, 730-738.

carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the antitrust laws.

SEC. 7. That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

No corporation shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of two or more corporations engaged in commerce where the effect of such acquisition, or the use of such stock by the voting or granting of proxies or otherwise, may be to substantially lessen competition between such corporations, or any of them, whose stock or other share capital is so acquired, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

This section shall not apply to corporations purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition. Nor shall anything contained in this section prevent a corporation engaged in commerce from causing the formation of subsidiary corporations for the actual carrying on of their immediate lawful business, or the natural and legitimate branches or extensions thereof, or from owning and holding all or a part of the stock of such subsidiary corporations, when the effect of such formation is not to substantially lessen competition.

Nor shall anything herein contained be construed to prohibit any common carrier subject to the laws to regulate commerce from aiding in the construction of branches or short lines so located as to become feeders to the main line of the company so aiding in such construction or from acquiring or owning all or any part of the stock of such branch lines, nor to prevent any such common carrier from acquiring and owning all or any part of the stock of a branch or short line constructed by an independent company where there is no substantial competition between the company owning the branch line so constructed and the company owning the main line acquiring the property or an interest therein, nor to prevent such common carrier from extending any of its lines through the medium of the acquisition of stock or otherwise of any other such common carrier where there is no substantial competition between the company extending its lines and the company whose stock, property, or any interest therein is so acquired.

. . . . . .

SEC. 8. That from and after two years from the date of the approval of this act no person shall at the same time be a director or

other officer or employee of more than one bank, banking association or trust company, organized or operating under the laws of the United States, either of which has deposits, capital, surplus, and undivided profits aggregating more than $5,000,000; and no private banker or person who is a director in any bank or trust company, organized and operating under the laws of a State, having deposits, capital, surplus, and undivided profits aggregating more than $5,000,000, shall be eligible to be a director in any bank or banking association organized or operating under the laws of the United States. The eligibility of a director, officer, or employee under the foregoing provisions shall be determined by the average amount of deposits, capital, surplus, and undivided profits as shown in the official statements of such bank, banking association, or trust company filed as provided by law during the fiscal year next preceding the date set for the annual election of directors, and when a director, officer, or employee has been elected or selected in accordance with the provisions of this act it shall be lawful for him to continue as such for one year thereafter under said election or employment.

No bank, banking association or trust company, organized or operating under the laws of the United States, in any city or incorporated town or village of more than two hundred thousand inhabitants, as shown by the last preceding decennial census of the United States, shall have as a director or other officer or employee any private banker or any director or other officer or employee of any other bank, banking association or trust company located in the same place: *Provided*, That nothing in this section shall apply to mutual savings banks not having a capital stock represented by shares: *Provided further*, That a director or other officer or employee of such bank, banking association, or trust company may be a director or other officer or employee of not more than one other bank or trust company organized under the laws of the United States or any State where the entire capital stock of one is owned by stockholders in the other: *And provided further*, That nothing contained in this section shall forbid a director of class A of a Federal reserve bank, as defined in the Federal Reserve Act from being an officer or director or both an officer and director in one member bank: *And provided further*, That nothing in this Act shall prohibit any private banker or other officer, director, or employee of any member bank or class A director of a Federal reserve bank, who shall first procure the consent of the Federal Reserve Board, which board is hereby authorized at its discretion, to grant, withhold, or revoke such consent, from being an officer, director, or employee of not more than two other banks, banking associations, or trust companies, whether organized under the laws of the United States or any State, if such other bank, banking association, or trust company is not in substantial competition with such banker or member bank.

The consent of the Federal Reserve Board may be procured before

the person applying therefor has been elected as a class A director of a Federal reserve bank or as a director of any member bank.

That from and after two years from the date of the approval of this Act no person at the same time shall be a director in any two or more corporations, any one of which has capital, surplus, and undivided profits aggregating more than $1,000,000, engaged in whole or in part in commerce, other than banks, banking associations, trust companies and common carriers subject to the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, if such corporations are or shall have been theretofore, by virtue of their business and location of operation, competitors, so that the elimination of competition by agreement between them would constitute a violation of any of the provisions of any of the antitrust laws. The eligibility of a director under the foregoing provision shall be determined by the aggregate amount of capital, surplus, and undivided profits, exclusive of dividends declared but not paid to stockholders, at the end of the fiscal year of said corporation next preceding the election of directors, and when a director has been elected in accordance with the provisions of this Act it shall be lawful for him to continue as such for one year thereafter.

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SEC. 10. That after two years from the approval of this Act no common carrier engaged in commerce shall have any dealings in securities, supplies, or other articles of commerce, or shall make or have any contracts for construction or maintenance of any kind, to the amount of more than $50,000, in the aggregate, in any one year, with another corporation, firm, partnership or association when the said common carrier shall have upon its board of directors or as its president, manager, or as its purchasing or selling officer, or agent in the particular transaction, any person who is at the same time a director, manager, or purchasing or selling officer of, or who has any substantial interest in, such other corporation, firm, partnership, or association, unless and except such purchases shall be made from, or such dealings shall be with, the bidder whose bid is the most favorable to such common carrier, to be ascertained by competitive bidding under regulations to be prescribed by rule or otherwise by the Interstate Commerce Commission. No bid shall be received unless the name and address of the bidder or the names and addresses of the officers, directors, and general managers thereof, if the bidder be a corporation, or of the members, if it be a partnership or firm, be given with the bid.

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SEC. 20. That no restraining order or injunction shall be granted by any court of the United States, or a judge or the judges thereof, in any case between an employer and employees or between employers and employees, or between employees, or between persons employed and persons seeking employment, involving, or growing out of, a dispute

concerning terms or conditions of employment, unless necessary to prevent irreparable injury to property, or to a property right, of the party making the application, for which injury there is no adequate remedy at law, and such property or property right must be described with particularity in the application, which must be in writing and sworn to by the applicant or by his agent or attorney.

And no such restraining order or injunction shall prohibit any person or persons, whether singly or in concert, from terminating any relation of employment, or from ceasing to perform any work or labor, or from recommending, advising, or persuading others by peaceful means so to do; or from attending at any place where any such person or persons may lawfully be, for the purpose of peacefully obtaining or communicating information, or from peacefully persuading any person to work or to abstain from working; or from ceasing to patronize or to employ any party to such dispute, or from recommending, advising, or persuading others by peaceful and lawful means so to do; from paying or giving to, or withholding from, any person engaged in such dispute, any strike benefits or other moneys or things of value; or from peaceably assembling in a lawful manner, and for lawful purposes; or from doing any act or thing which might lawfully be done in the absence of such dispute by any party thereto; nor shall any of the acts specified in this paragraph be considered or held to be violations of any law of the United States.

Act Creating the Federal Trade Commission, 1914

[Act of September 26, 1914 (38 *Stat.*, 717).]

3.[1] AN ACT To create a Federal Trade Commission, to define its powers and duties, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created and established, to be known as the Federal Trade Commission (hereinafter referred to as the commission), which shall be composed of five commissioners, who shall be appointed by the President, by and with the advice and consent of the Senate. Not more than three of the commissioners shall be members of the same political party. The first commissioners appointed shall continue in office for terms of three, four, five, six, and seven years, respectively, from the date of the taking effect of this Act, the term of each to be designated by the President, but their successors shall be appointed for terms of seven years, except that any person chosen to fill a vacancy shall be appointed only for the unexpired term of the commissioner whom he shall succeed. The commission shall choose a chairman from its own membership. No commissioner shall engage in any other business, vocation, or employment. Any commissioner may be

[1] *The Federal Anti-trust Laws with Amendments,* pp. 31, 32, 34-39. Washington, 1922; *U. S. Stat.,* xxxviii, Part I, 717-740.

removed by the President for inefficiency, neglect of duty, or malfeasance in office. A vacancy in the commission shall not impair the right of the remaining commissioners to exercise all the powers of the commission.

The commission shall have an official seal, which shall be judicially noticed.

SEC. 2. That each commissioner shall receive a salary of $10,000 a year, payable in the same manner as the salaries of the judges of the courts of the United States. The commission shall appoint a secretary, who shall receive a salary of $5,000 a year, payable in like manner, and it shall have authority to employ and fix the compensation of such attorneys, special experts, examiners, clerks, and other employees as it may from time to time find necessary for the proper performance of its duties and as may be from time to time appropriated for by Congress.

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SEC. 3. That upon the organization of the commission and election of its chairman, the Bureau of Corporations and the offices of Commissioner and Deputy Commissioner of Corporations shall cease to exist; and all pending investigations and proceedings of the Bureau of Corporations shall be continued by the commission.

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SEC. 5. That unfair methods of competition in commerce are hereby declared unlawful.

The commission is hereby empowered and directed to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the Acts to regulate commerce, from using unfair methods of competition in commerce.

Whenever the commission shall have reason to believe that any such person, partnership, or corporation has been or is using any unfair method of competition in commerce, and if it shall appear to the commission that a proceeding by it in respect thereof would be to the interest of the public, it shall issue and serve upon such person, partnership, or corporation a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said complaint. The person, partnership, or corporation so complained of shall have the right to appear at the place and time so fixed and show cause why an order should not be entered by the commission requiring such person, partnership, or corporation to cease and desist from the violation of the law so charged in said complaint. Any person, partnership, or corporation may make application, and upon good cause shown may be allowed by the commission, to intervene and appear in said proceeding by counsel or in person. The testimony in any such proceeding shall be reduced to writing and filed in the office of the commission. If upon such hearing the commission shall be of the opinion that the

method of competition in question is prohibited by this Act, it shall make a report in writing in which it shall state its findings as to the facts, and shall issue and cause to be served on such person, partnership, or corporation an order requiring such person, partnership, or corporation to cease and desist from using such method of competition. Until a transcript of the record in such hearing shall have been filed in a circuit court of appeals of the United States, as hereinafter provided, the commission may at any time, upon such notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any report or any order made or issued by it under this section.

If such person, partnership, or corporation fails or neglects to obey such order of the commission while the same is in effect, the commission may apply to the circuit court of appeals of the United States, within any circuit where the method of competition in question was used or where such person, partnership, or corporation resides or carries on business, for the enforcement of its order, and shall certify and file with its application a transcript of the entire record in the proceeding, including all the testimony taken and the report and order of the commission. Upon such filing of the application and transcript the court shall cause notice thereof to be served upon such person, partnership, or corporation and thereupon shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to make and enter upon the pleadings, testimony, and proceedings set forth in such transcript a decree affirming, modifying, or setting aside the order of the commission. The findings of the commission as to the facts, if supported by testimony, shall be conclusive. If either party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the commission, the court may order such additional evidence to be taken before the commission and to be adduced upon the hearing in such manner and upon such terms and conditions as to the court may seem proper. The commission may modify its findings as to the facts, or make new findings, by reason of the additional evidence so taken, and it shall file such modified or new findings, which, if supported by testimony, shall be conclusive, and its recommendation, if any, for the modification or setting aside of its original order, with the return of such additional evidence. The judgment and decree of the court shall be final, except that the same shall be subject to review by the Supreme Court upon certiorari as provided in section two hundred and forty of the Judicial Code.

Any party required by such order of the commission to cease and desist from using such method of competition may obtain a review of such order in said circuit court of appeals by filing in the court a written petition praying that the order of the commission be set aside.

A copy of such petition shall be forthwith served upon the commission, and thereupon the commission forthwith shall certify and file in the court a transcript of the record as hereinbefore provided. Upon the filing of the transcript the court shall have the same jurisdiction to affirm, set aside, or modify the order of the commission as in the case of an application by the commission for the enforcement of its order, and the findings of the commission as to the facts, if supported by testimony, shall in like manner be conclusive.

The jurisdiction of the circuit court of appeals of the United States to enforce, set aside, or modify orders of the commission shall be exclusive.

Such proceedings in the circuit court of appeals shall be given precedence over other cases pending therein, and shall be in every way expedited. No order of the commission or judgment of the court to enforce the same shall in any wise relieve or absolve any person, partnership, or corporation from any liability under the antitrust Acts.

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SEC. 6. That the commission shall also have power—

(a) To gather and compile information concerning and to investigate from time to time the organization, business, conduct, practices, and management of any corporation engaged in commerce, excepting banks and common carriers subject to the Act to regulate commerce, and its relation to other corporations and to individuals, associations, and partnerships.

(b) To require, by general or special orders, corporations engaged in commerce, excepting banks, and common carriers subject to the Act to regulate commerce, or any class of them, or any of them, respectively, to file with the commission in such form as the commission may prescribe annual or special, or both annual and special, reports or answers in writing to specific questions, furnishing to the commission such information as it may require as to the organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals of the respective corporations filing such reports or answers in writing. Such reports and answers shall be made under oath, or otherwise, as the commission may prescribe, and shall be filed with the commission within such reasonable period as the commission may prescribe, unless additional time be granted in any case by the commission.

(c) Whenever a final decree has been entered against any defendant corporation in any suit brought by the United States to prevent and restrain any violation of the antitrust Acts, to make investigation, upon its own initiative, of the manner in which the decree has been or is being carried out, and upon the application of the Attorney General it shall be its duty to make such investigation. It shall transmit to the Attorney General a report embodying its findings and recommendations as a result of any such investigation, and the report shall be made public in the discretion of the commission.

(d) Upon the direction of the President or either House of Congress to investigate and report the facts relating to any alleged violations of the antitrust Acts by any corporation.

(e) Upon the application of the Attorney General to investigate and make recommendations for the readjustment of the business of any corporation alleged to be violating the antitrust Acts in order that the corporation may thereafter maintain its organization, management, and conduct of business in accordance with laws.

(f) To make public, from time to time, such portions of the information obtained by it hereunder, except trade secrets and names of customers, as it shall deem expedient in the public interest; and to make annual and special reports to the Congress and to submit therewith recommendations for additional legislation; and to provide for the publication of its reports and decisions in such form and manner as may be best adapted for public information and use.

(g) From time to time to classify corporations and to make rules and regulations for the purpose of carrying out the provisions of this Act.

(h) To investigate from time to time, trade conditions in and with foreign countries where associations, combinations, or practices of manufacturers, merchants, or traders, or other conditions, may affect the foreign trade of the United States, and to report to Congress thereon, with such recommendations as it deems advisable.

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SEC. 9. That for the purposes of this act the commission, or its duly authorized agent or agents, shall at all reasonable times have access to, for the purpose of examination, and the right to copy any documentary evidence of any corporation being investigated or proceeded against; and the commission shall have power to require by subpœna the attendance and testimony of witnesses and the production of all such documentary evidence relating to any matter under investigation. Any member of the commission may sign subpœnas, and members and examiners of the commission may administer oaths and affirmations, examine witnesses, receive evidence.

Report of the Industrial Commission on Control of Prices

4.[1] *Control of Prices.*—A manufacturer who controls so large a proportion of the product as do some of these combinations can,

[1] *56th Cong., 1st Sess., House of Representatives, Doc. No. 476, part i. Industrial Commission Preliminary Report on Trusts and Industrial Combinations,* pp. 18-20. Washington, 1900.

EDITOR'S NOTE.—On June 18, 1898, Congress provided for an Industrial Commission composed of five senators, five representatives and nine others "to investigate questions pertaining to immigration, to labor, to agriculture, to manufacture, and to business, and to report to Congress and to suggest such legislation as it may deem best upon these subjects" (*U. S. Statutes at Large,* xxx, 476). Headed by Senator James H. Kyle the Commission rendered valuable reports which remain one of the most important sources in American economic history.

beyond question, to a considerable degree control the price. Throwing into the market a large amount of goods at one time tends to lower the price. Likewise, one who controls plants enough to supply the entire normal demand of the country can, evidently, by closing some of these plants, readily raise the price.

The custom has regularly been for some years for the Standard Oil Company to announce from day to day the price which it would pay for crude petroleum and the price at which it would sell refined petroleum. This price is generally accepted as the market price, and competitors follow.

Likewise, the American Sugar Refining Company first posts the prices for the day, and is then followed by its competitors, who post theirs. Generally they take the prices fixed by the American Sugar Refining Company; but at times, if they have a little surplus stock on hand, or if it is difficult for them to secure a customer, they will cut the price perhaps one-sixteenth of a cent per pound. One or two of the chief competitors seem to be forced to put their prices quite frequently at one-sixteenth of a cent below that of the American Sugar Refining Company. In spite of its control over the output it is said by Mr. Post that the American Sugar Refining Company has not, in his judgment, unduly restricted the output. It is probable, he thinks, that had that company not been formed the competitive system would have ruined many established refineries, so that as many would have been closed as is now the case and the output would have been fully as small, probably even less. Practically all of the witnesses, both members of the combination and their opponents, concede that while there is a certain arbitrariness in fixing the prices it has been exercised in most cases only within comparatively narrow limits, and then mainly to meet competition or stifle it.

While prices may be kept at rates sufficient, by virtue of the economies of combination, to pay reasonable, even considerable, profits, though still largely excluding competition, any attempt, it is claimed by many witnesses, to secure extortionate prices defeats itself by provoking competition. Thus the whisky combination, in the days of the Distillers and Cattle Feeders' Trust and the Distilling and Cattle Feeding Company, in certain instances put up the prices to an excessively high point. The result was that numerous competitive distilleries were built, so that either the trust was forced to buy them out at high figures or else the competitors secured enough control of the market so that the prices were comparatively soon forced down.

It seems to be conceded by all parties that the whisky combination might, if it would adopt that policy, hold its prices at profitable rates, and at the same time so low that no one would care to compete, its present leading competitors being willing to buy whatever product they need for compounding purposes from the trust at a fixed price based upon that of corn.

The officials of the American Tin Plate Company recognize that

their price is to be considered the American price, although they, with all of the other representatives of combinations, deny that they possess a monopoly, and show that there are some competitors in the field. The company fixes the price, which its competitors in the main follow, but its officers realize that if they push their profits too high they will simply call in competitors to so great an extent that it will hurt their own business and prevent their control of the conditions. The same argument is presented in general terms by several witnesses regarding the control over prices by the combinations.

In some cases, notably in the iron and steel and allied industries, there has been within the last year or two an almost marvelous increase in the demand for products of all kinds. In consequence, prices have advanced very rapidly. While it is probably true that the combinations have been able to seize the advantages of the situation better than could smaller manufacturers, there can be no doubt that the main increase in price has come from the most unusual demand. Mr. Gates testified that in his judgment the new output of steel cars, steel vessels, and steel frames for buildings and bridges constituted as large a tonnage as the total tonnage of the United States in iron and steel fifteen or twenty years ago. All the witnesses in those lines seemed to agree as to the increase in demand and as to the fact that it, with the corresponding increase in price of basic materials, was the chief cause of the increase in price of finished product. Hardly any of the companies could meet present demand and all were taking contracts for months ahead.

The fact, however, that in the main the great combinations fix the prices and their competitors follow would seem to show a certain element of monopoly. When they make a cut in the price the others must follow, and their action is substantially an arbitrary one. They, on the other hand, having so large a control of the market, need not follow the cut of a competitor in a comparatively small market, although, of course, they can not permit the competitor to widen his market materially, provided they wish to hold the control. So, on the other hand, this monopolistic element is shown by the fact that the increased price fixed at any time by a combination must be taken, at least temporarily, by most consumers, since the combination is, substantially, at the moment the chief source of supply, its competitors being utterly unable to meet the needs of the market. This is true in spite of the fact that if the prices are made unreasonably high, competitors would, in the long run, deprive the combination of its trade.

The success of great combinations as chief manufacturers depends, their officers claim, upon a cheaper cost of production than that which their competitors possess. If they can not effect this, the witnesses maintain that the combinations will comparatively soon lose their control, unless they can succeed in bringing some other element, like a patent, into the problem. On the other hand, it has been conceded by one or two of the witnesses that the fact merely that the combina-

tions possess so large a capital and can exert so much power tends to frighten their actual or would-be competitors, and this enables them to secure or keep a certain element of monopolistic control, aside from the greater cheapness of production which they may or may not possess. Of course, this latter monopolistic element, depending upon the deterrent effect which their power exerts upon their competitors, is, these witnesses claim, comparatively slight.

Report of Industrial Commission on Overcapitalization

5,[1] The Facts from the Testimony

1. *Capitalization.*—Regarding most of the combinations concerning which testimony has been taken the facts appear quite clear.

None of the witnesses believe that the Standard Oil Company is on the whole over-capitalized, as compared with the present value of the plants. Its opponents believe that its profits are enormous on the capitalization. The witnesses representing the Standard Oil Company itself, while admitting very large profits and presenting no very definite facts regarding the capitalization, still give the same impression from their testimony.

The American Sugar Refining Company seems to be, beyond question, capitalized at a sum twice as large at least as the cost of reconstruction of the plants themselves. The capitalization was shown to be several times the original capitalization of its constituent members, the testimony taken before the Lexow Committee on this point being confirmed in terms, although the capitalization of some of these constituent members had little relation to their actual value. Much more direct was the testimony regarding the present capitalization as compared with the present cost of reproducing the plants. The present capacity of the American Sugar Refining Company is substantially 40,000 barrels per day. On the basis of estimates given by Mr. Doscher, Mr. Jarvie, Mr. Post, and Mr. Havemeyer, these refineries could be built at a cost of from twenty to thirty-five millions, it being conceded by them all that the present cost of building (June, 1899) is very much higher than it would have been a little earlier. This sum would show that a capitalization of probably not over half the present one ($75,000,000) would be ample to handle the business satisfactorily. Mr. Havemeyer, however, contends that the value of the brands owned by the American Sugar Refining Company and the good will must not be overlooked. The Havemeyer and Elder brand especially is in itself, he thinks, worth thirty-five or forty millions, and is at least equal in value to the plants. The dividends by the American Sugar Refining Company for some years past, 7 per cent on the preferred stock and 12 per cent on the common, together with the sum set aside for surplus, would seem to show that, while the capitalization may be far above

[1] *56th Cong., 1st Sess., House of Representatives, Doc. No. 476, part i. Industrial Commission Preliminary Report on Trusts and Industrial Combinations,* pp. 13-16. Washington, 1900.

the cost of the plants, it is not above the earning capacity of the establishments at the range of prices which has prevailed for the past few years. This raises the question whether the power of the combination has not enabled it to keep prices up so that its earnings could pay dividends on an excessive capitalization, and whether the high capitalization has not been an added temptation to hold prices high.

According to the testimony of several witnesses, the first stable whisky combination, the Distillers and Cattle Feeders' Trust, was capitalized at an amount far beyond the cash value of its plants. The clearest testimony on this subject was given by Mr. Clarke, who asserted that he was paid in trust certificates four times the agreed-upon fair cash value of his plant. He believes that other distillers who went into the combination were paid on substantially the same basis. Probably some of the more influential trustees secured even more than the other members. The trust certificates received dividends of 6 per cent per annum for some years. On the basis, also, of late offers which were made him for the plant of which he was in control, Mr. Clarke believes that the Standard Distilling and Distributing Company was capitalized at probably six times the actual cash value of the plants. Other witnesses, while not giving testimony in such definite figures, nevertheless confirm the fact of large overcapitalization of the whisky combinations. In fact, the testimony of Mr. Cook would tend to show that the present capacity of the new whisky combination could be reproduced at but a small fraction of the present capitalization.

Perhaps the clearest testimony on this subject of capitalization came from the witnesses connected with some of the iron and steel companies. The witnesses regarding the tin-plate combinations were in substantial agreement in stating that the owners of most of the plants gave an option on their plants at what they considered was the fair cash value, although, owing to the good times and to the fact that, in many cases, the industries were quite prosperous, the prices were high. They were then given, by the promoter, the option of taking this valuation of their property in cash, or of taking instead the same amount in preferred stock with a like amount of common stock added as bonus. The witnesses who appeared before the Commission had chosen to take stock instead of cash, believing that the business could carry that capitalization, and the price of stock on the market shows that the common and preferred together have so far ranged above the cash valuation.

One of the witnesses, at least, conceded that the total amount of stock thus paid for the plants, since the cash option was taken in prosperous times and included not merely the value of the plant but also the good will of the running business, probably amounted in some instances to three or four or even five times the cash cost of the plants at that time. Owing, however, to the greatly increased value of material and the increased wages of labor, some of the witnesses were of

the opinion that the preferred stock alone of the tin-plate company would probably not equal the cost of reproduction of its plants at the present time.

Exactly the same system seems to have been followed in the capitalization of the National Biscuit Company, the National Steel Company, and the American Steel Hoop Company. In all these cases there was a clear understanding that the common stock represented simply bonus or anticipated profits. The fact that the cash options taken on the plants included also in the minds of the sellers the good will, and were presumably at a fairly high price, considering the prosperous times and the added advantage which was expected to be obtained from the combination itself, would seem to show that the capitalization, including both preferred and common stock, was considerably more than double the cost of reproducing the plants themselves.

In the case of the American Tin Plate Company there was also added ten millions of common stock, which was issued to the promoter for his services and for the cost of organization. It is presumed, of course, that not a little of this ten millions had to be paid out in commissions, etc., to those who aided in securing the required amount of capital, including cash furnished for working capital. The amount of extra common stock issued for purposes of promotion in the American Steel Hoop Company and in the National Steel Company was $5,000,000 in each case.

In all these cases the capital seems not to have been beyond the earning capacity during the prosperous times of the last year, the questions again arising as to whether the prices have been pushed beyond normal rates in order to pay dividends on watered stock.

The International Silver Company, according to the testimony of its president, has from 45 to 50 per cent of its capitalization represented by plants, machinery, merchandise, etc., and the rest by brands or "good will."

Mr. Gates, president of the American Steel and Wire Company, estimates that of their $80,000,000 of capital stock, some $10,000,000 to $15,000,000 are considered good will, the rest plants and material. It is to be noted, however, that the valuation of the plants given by Mr. Gates is based on the great increase in cost of all iron material for the yast year, and not on the value at the time the organization was capitalized. Forty million dollars would come more nearly the cash value at the time, 1897-98, when Mr. Morgan's estimate was made of $28,000,000 for some 70 per cent of the value of all the plants.

The National Shear Company was clearly capitalized at far beyond its cash value. Mr. Wiss was of the opinion that the stock issued was five times more than the cash value of the plants; and the fact that the stock was practically unsalable would seem to justify his conclusion, even though there were difficulties in connection with the management of the establishments which would tend to lower the value of the stock.

2. *Promoters' Profits.*—As was intimated above, one of the chief causes of this overcapitalization comes from the high profits that are secured by the promoters and by the underwriters of the stock when the combinations are made. Mention has just been made of the ten millions of common stock paid to the promoter of the American Tin Plate Company, and of the five millions paid in each case to the promoter of the National Steel Company and of the American Steel Hoop Company.

According to the testimony of Mr. Clarke, when the Standard Distilling and Distributing Company was organized, for each $100,000 of cash advanced to buy the plants the underwriters received $100,000 in preferred stock and $150,000 in common stock, while the promoter likewise received $150,000 in common stock.

According to the agreement made with the organizers of the Distilling Company of America, they were to turn over all the stock of the constituent companies at a ratio agreed upon, and were then to furnish $1,500,000 cash as working capital and two distilleries which, it was testified, cost $2,000,000. After full exchange in stock at the agreed ratios was made, there would be left in their hands, with which to secure the $3,500,000 cash needed, $10,710,000 of preferred stock and $13,360,000 of common. At the average market price of the stocks during the month after the company was organized, July, 1897, 56½ and 21, respectively, these stocks would have been worth $8,856,750, although, of course, they would not have realized this if thrown on the market. Promoters' profits seemed thus very large. By December, however, the stock had so fallen that it was worth less than $4,000,000; so that the ultimate gains were possibly not so large as they at first appeared.

Mr. Pearson, who acted as banker for the National Shear Company, testified that he was to receive $30,000 in preferred stock and $225,000 in common stock for discounting the notes of the company to the amount of $200,000 and continuing this rediscounting for a period of 18 months. In case he withdrew from his bargain after 9 months, he was to receive a little less than half. Being dissatisfied with the way the company was doing business, at the end of 9 months he withdrew from this arrangement. The stock due to him in accordance with the contract had not yet been paid when he testified. This combination seems practically to have been organized on borrowed money, even in part for payments for plants. The liberality of the organization with the banker was clearly brought out. The profits of the promoters did not appear from the testimony.

According to the testimony of Mr. Gary the Federal Steel Company was capitalized at almost precisely the actual value of the plants, estimated by a board of appraisers, together with the actual cash put in. Considerable has been allowed for increased values of lands, and, of course, the exact basis of the appraisement did not appear. He testified also that J. P. Morgan & Co., the bankers who effected

the exchange of the stocks of the constituent companies for that of the Federal Steel Company, received some $200,000 for their services. He admitted however, that before this arrangement was made by J. P. Morgan & Co. for the syndicate that was organizing the Federal Steel Company, J. P. Morgan & Co. already controlled a majority of the stock of all the constituent companies. The price paid by them for this stock did not appear, so that their real profits are not clearly in evidence.

On the whole, from the testimony given before the Commission, the inference seems a fair one that the capitalization of these combinations is usually a sum considerably above the value of the plants together with patents, but exclusive of brands and good will, of the companies that enter into the combination. In cases that are considered fairly conservative, the amount of stock issued, including both preferred and common stock, is from two to three times more than this value, while in not a few instances—for example, the one cited by Mr. Dill where value of possibly $500,000 was capitalized for $8,000,000—the capital stock seems to bear little relation to actual value of plants and patents.

Report of Industrial Commission on Advantages and Evils of Combinations

Summary of Advantages and Evils

I. Advantages

6.[1] Those who advocate the formation of large industrial combinations claim that they possess over the system of production on a smaller scale by competing plants the following advantages:

1. *Concentration.*—By closing individual plants less favorably located or less well equipped and concentrating production into the best plants most favorably located a great saving can be effected, both in the amount of capital necessary for the production of a given product and the amount of labor required.

Another advantage of the concentration of industry is that the plants which are kept employed can be run at their full capacity instead of at part capacity, and can largely be run continuously instead of intermittently, so far as the combination happens to control the larger part of the entire output—a material source of saving in certain lines of industry. A still further advantage of this concentration comes in the selling of the product, from the fact that customers, being always sure of ready supply whenever it is wanted, more willingly buy from the large producer, and that there is less loss from bad debts. This readiness to buy from trusts, however, is denied,

[1] *56th Cong., 1st Sess., House of Representatives, Doc. No. 476, Part I. Industrial Commission Preliminary Report on Trusts and Industrial Combinations,* pp. 32-34. Washington, 1900.

some witnesses holding that dealers prefer to buy from independent producers.

In certain lines of industry much greater economy can be practiced, especially in the way of using by-products to better advantage in a large establishment than in a small one. Much difference of opinion exists among witnesses in most lines of industry as to the size of plant that can secure the most economical division of labor and use of by-products, without making adequate supervision too difficult.

2. *Freights.*—Where the product is bulky, so that the freight forms an essential element of the cost, much can be saved by an organization which has plants established at favorable locations in different sections of the country so that purchasers can be supplied from nearest plants, thus saving the cross freights, which, of course, must be paid where customers are supplied from single competing plants.

3. *Patents and Brands.*—Where different establishments, selling separate brands, are brought together into one combination, the use of each brand being made common to all, a great saving is often effected, since the most successful can be more efficiently exploited.

The control also of substantially all patents in one line of industry sometimes enables the combination to secure a monopoly which it could not otherwise secure.

4. *Single Management.*—The great completeness and simplicity of the operation of a single great corporation or trust is also a source of saving. Where each of the different establishments which are united had before a president, a complete set of officers, and a separate office force, the combined establishment need have but its one set of chief officers, and subordinates at lesser salaries may take the places of the heads of separate establishments. In this way a material saving is often made in the salaries of the higher officials; while a considerable reduction of the total office force is also possible. It is likewise true that this same form of organization enables one set of traveling salesmen to sell all of the brands or all classes of goods for the separate establishments, and in that way much labor is saved. This is considered a great saving from the standpoint of the producer and consumer, but is likewise naturally considered an evil from the point of view of those who are thus thrown out of work.

The more complete organizations also will distribute the work among the different plants in such a way that to each is given the particular kind of product for which it is specially adapted, and in many cases changes in machinery and changes of workmen from one kind of product to another are avoided, a source often of great saving.

5. *Skilled Management.*—The bringing into coöperation of leading men from the separate establishments, each having different elements of skill and experience, makes it possible to apply to the business the aggregate ability of all, a factor in many instances doubtless of great advantage. To some degree there may be a finer specialization of business ability, each man being placed at the head of the department

for which he is specially fitted, thus giving, of course, the most skilled management possible to the entire industry, whereas before the combination was effected only comparatively few of the leading establishments would have managers of equal skill.

But this advantage, some think, is limited. The chief managers at the central office are likely to be large stockholders, and thus to have a strong direct interest in the success of the enterprise. This may hold also of many of the superintendents of departments. But others will be hired managers, and, it is claimed, a hired superintendent will not take the same interest in the establishment or be able to exert the same intelligent control as the owner of a comparatively small establishment. Moreover, minute supervision can not well be exercised in a very large combination.

6. *Export Trade.*—The control of large capital also, it is asserted, enables the export trade to be developed to much greater advantage than could be done by smaller establishments with less wealth at their disposal.

II. EVILS

Among the evils of the great combinations those most frequently mentioned are:

1. *Employees Discharged.*—When different establishments come together into one, it is often the case that certain classes of employees are needed in much less numbers than by the independent plants. This is specially true in the case of commercial travelers, and, also, perhaps in the case of superintendents and clerks in the offices. While this is generally admitted, it is considered by many to be an inevitable condition of progress and only a temporary hardship which, like that resulting from the introduction of a new machine, will ultimately result in a greater gain.

2. *Methods of Competition.*—The large establishments, by cutting prices in certain localities, while maintaining the prices in the main, have a decided advantage over the smaller competitors whose market is limited to the one field in which the prices are cut, and consequently can often succeed in driving their rivals out of the business.

Connected with this method of competition is also the use of unfair methods, such as following up rivals' customers, bribing employees of rivals to furnish information, etc.

The sudden raising and lowering of prices by the combinations, without notice and apparently arbitrarily to embarrass their opponents, is also considered a great evil.

3. *Increased Prices.*—When the combinations have sufficient strength, or for any reason get monopolistic control more or less complete, it is thought that they often raise prices above competitive rates, to the great detriment of the public.

4. *Speculation and Overcapitalization.*—Another evil often charged

against these newer combinations is that the promoter, by virtue of misrepresentations or by the concealment of material facts, is frequently able to secure very large profits for himself at the expense of the people at large who buy the stocks, and that in this way undue speculation is encouraged.

Connected with this evil which comes with the modern method of promotion is that of overcapitalization. Stock is frequently issued to four or five, or even more, times the amount of cash value of the plants that are brought into the combinations. These stocks then placed upon the market go into the hands of persons ignorant of the real value of the property, who afterwards are likely to lose heavily. Pools are sometimes made to control the stock market, or other of the common ways of disposing of the stock by unfair methods are employed.

At times also the officers and directors of the large combinations seem to have taken advantage of their inside knowledge of the business to speculate on the stock exchange in their own securities to the great detriment of the other shareholders.

5. *Freight Discriminations.*—Among the chief evils mentioned are those of freight discriminations in favor of the large companies, which many assert are the chief cause for the growth of the great combinations.

6. *Monopoly; Its Social Effects.*—The fact that an organization possesses a practical monopoly and can in that way direct its operations at the expense of its rivals, thereby preventing competitors from coming into the field, it is thought, takes away from the individual initiative of business men and prevents particularly the younger men from going into business independently. The formerly independent heads of establishments entering the combinations are also, it is said, reduced to the position of hired subordinates. By these means, witnesses claim, the trusts are in reality sapping the courage and power of initiative of perhaps the most active and influential men in the community. This evil is denied by many of the members of the large corporations, who think that within those corporations are found opportunities for the exercise of judgment and enterprise and for rising in life which do not exist outside.

Transportation and Coal, 1902

7.[1] *Relation of Railroads to Anthracite-coal Industry.*—The railroads reaching the anthracite-coal fields are the Pennsylvania, the Lehigh Valley, the Reading, the Central Railroad of New Jersey, the Delaware, Lackawanna and Western, the Delaware and Hudson, the Erie, and the New York, Ontario and Western. A very large proportion of the coal produced is transported by these railroads to New

[1] *57th Cong., 1st Sess., 1901-1902, House of Representatives, Doc. No. 178. Report of the Industrial Commission on Transportation* (second volume on this subject), vol. ix of the Commission's Report, pp. xxiv-xxvi.

York and other tide-water points, apparently not more than 19 or 20 per cent being used in Western and Southern markets.

Each of the railroads named controls one or more coal-producing companies. In the case of the Reading, the Lehigh Valley, and several of the other railroads, these coal companies are, according to the witnesses representing these interests, virtually identical with the railroads, being organized separately chiefly because of the legal restrictions which prevent railroads from operating coal mines. The accounts of these railroad coal companies are, however, kept entirely distinct from those of the railroads, and they pay the regular freight rates to the railroads. The coal companies controlled by the railroads, also buy large quantities of coal from so-called "individual," or smaller, operators.

The proportion of the coal produced by the railroad companies has apparently been until recently about two-thirds, the output of individual operators being variously stated by witnesses at from 30 to 34 per cent. Recent purchases, by the railroads, of the mines of independent operators have reduced this percentage materially. The secretary of the Anthracite Coal Operators' Association says that at present the output belonging to independent producers is probably about 29 per cent, but other witnesses put it at a lower proportion. It appears also that these railroad coal companies hold a very considerable proportion of the undeveloped or reserve coal lands, so that in the future, as present mines are exhausted, their control of the actual output will presumably be greater. It is maintained that the reason why the railroads bought up coal lands was the desire to make their transportation business permanent. The operations of individual concerns with small capital were likely to be irregular while traffic might be diverted from one railroad to another so long as the mines were independently owned. The proportion of coal produced by independent operators and by the railroad companies, respectively, varies considerably in the case of the different railroads. On the Reading, for example, only about 1,000,000 tons out of 8,000,000 or 9,000,000 tons hauled yearly is produced by independent operators. The proportion of the independent operators is largest in the case of the Lehigh Valley Railroad, which in 1900 mined only 2,922,000 tons out of 7,675,000 tons carried.

Establishment of Community of Interest.—It appears probable from the statements of witnesses summarized below that the practice has long prevailed among the anthracite-coal railroads of acting more or less in harmony as regards the division of the traffic and the fixing of prices of coal. Apparently it was partly in view of the difficulty of maintaining effective agreements and thorough harmony in the past that the recent movement toward community of interest or ownership has taken place. Witnesses representing financial interests, independent operators, and officers of the railroads concerned all agree that there has been established a certain degree of community of interest,

affecting more especially the Reading, Lehigh Valley, Jersey Central, Delaware, Lackawanna and Western, and Erie railroads. These railroads carried in 1900 about 72½ per cent of the entire anthracite shipments. The precise nature of the combination is not made clear, but it seems to have been brought about chiefly by the purchase or interchange of stocks by a few large capitalists, which gives them a powerful influence in the management of all the roads named. J. P. Morgan & Co. have been especially instrumental in this movement. Various men are directors in several of the railroads at the same time. The object is admitted to be to bring about a consideration of the mutual interests of the roads. It is denied that there is any absolute combination or consolidation between these railroads, except to the extent that the Reading Company has recently bought a controlling interest in the Central Railroad of New Jersey, and that the Erie controls the Susquehanna and Western and the Erie and Western, minor roads not reaching to tide water.

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It is maintained by several witnesses that the leading anthracite-coal roads are not merely tending to come together under a community of interest, but are attempting to absorb a large proportion of the production of coal. It is pointed out that about 3 years ago the independent operators, with a view to securing a lower cost of transportation, proposed the construction of a railroad to tide water. Some of the roads, through the Temple Iron Company, bought up many of the mines which had pledged tonnage to this railroad and forced the abandonment of the enterprise. Afterwards another road was planned by the operators following the Delaware and Hudson Canal to Kingston. The Pennsylvania Coal Company, one of the largest of the independent producers of coal, which itself owned a local railroad, known as the Erie and Wyoming Valley, was a prominent factor in this enterprise. The Erie Railroad has recently bought up the Pennsylvania Coal Company and its affiliated railroad, paying therefor $32,000,000. This purchase blocked the construction of the proposed line to Kingston. The New York, Ontario and Western has also recently bought up a very considerable amount of coal production. The manager of this railroad says that it was forced to do this in order to assure the permanence of its tonnage. It merely followed the example of other leading railroads. It is, however, stated, even by one or two independent operators, that the operators who sold out were not forced to do so by discrimination or otherwise, but that, being offered a high price, they preferred to sell rather than to run the risks of independent business. It is claimed, however, by these witnesses and others that the motive of the railroad companies was to prevent a diversion of their tonnage as well as to check the disturbing influence of independent operators in the sale of coal.

Consolidation in the Tobacco Industry

8.[1] The history of the Tobacco Combination thus presented shows plainly that the leading purpose of the men who have controlled it has been to dominate the tobacco industry. They started out by practically monopolizing the cigarette business. With the great profits derived from that source they carried on a strenuous competitive fight in the plug industry, which ultimately forced the leading competing manufacturers into combination with themselves. This secured for the Combination a dominant position in the manufacture, not only of plug, but of smoking tobacco. Soon after, the combination in the snuff industry was brought about, and subsequently a combination in the cigar industry. The latter, however, controls only a limited proportion of the business.

The successive combinations which these men have established except that in the cigar business, at the outset took in the leading manufacturers and secured a very large degree of control over the business. That degree of control, however, has been further extended by the acquisition, either by direct purchase or by securing a controlling stock interest, of a very large number of other competing concerns. The total number of formerly separate concerns and combinations which have passed under the control of the Tobacco Combination is in the neighborhood of 250. This number includes the concerns which originally entered the several combinations, but such original acquisitions, though in general they were the largest concerns, were much less numerous than the concerns acquired subsequent to the formation of the combinations. It appears to have been the policy in fact to buy up, from time to time, most competitors whose business had become successful.

The effect of these later acquisitions is best seen in the increase in the proportion of the business controlled. In 1900, shortly after the formation of the Continental Tobacco Company, the Tobacco Combination controlled about 60 per cent of the production of chewing and smoking tobacco in the United States. In 1906 it controlled 81.8 per cent of the chewing tobacco and 70.6 per cent of the smoking tobacco. Its proportion of the manufacture of snuff increased from 80.2 per cent in 1901, the first full year of the operation of the American Snuff Company, to 96 per cent in 1906.

A significant feature of many of the acquisitions of the Combination, particularly during the period from 1902 to 1904, is the fact that they were made secretly and that the American Tobacco Company interests, as long as possible, concealed their control, continuing

[1] *Report of the Commissioner of Corporations on the Tobacco Industry, part i. February 25, 1909,* pp. 12-15. Washington, 1909.

Editor's Note.—In 1907 the federal government brought suit against the American Tobacco Company as a violator of the Sherman Anti-trust Act, and in 1911 the Supreme Court ordered the dissolution of the company. See Eliot Jones, *The Trust Problem in the United States,* pp. 413-419, 452-474.

to operate the concerns as though independent and often using them as a special instrument for attacking the business of genuine competitors.

Aside from concerns engaged in tobacco manufacture, the American Tobacco Company, and to a less extent the other affiliated combinations, have, particularly since 1899, acquired control of many concerns engaged in enterprises contributory to tobacco manufacture. Concerns thus brought under the control of the Combination include many engaged in the wholesale or retail distribution of tobacco products, several producing leaf tobacco in Cuba and Porto Rico, a number which make packages and materials, other than tobacco, used in tobacco manufacture, several which exploit patents for machinery or manufacture machinery for the use of tobacco factories, and a few which handle by-products, make smokers' supplies, etc. The most important of these contributory enterprises of which the Combination has secured control is the manufacture of licorice which is a very important material in tobacco manufacture. Through the MacAndrews & Forbes Company, which has bought up several competing concerns, the American Tobacco Company interests have substantially a complete monopoly of the licorice business.

Present Organization and Business of the Tobacco Combination

The four principal companies in the combination

The history of the Tobacco Combination has made it clear that the American Tobacco Company has throughout been the principal factor, and this is still more true since the reorganization of 1904, which united the Consolidated, American, and Continental companies under the new corporation with the old name, American Tobacco Company. There are three other corporations still, however, whose position in the Tobacco Combination distinguishes them from the great majority of the subsidiary companies. These are the American Snuff Company, the American Cigar Company, and the British-American Tobacco Company.

The American Tobacco Company not only controls the other three principal companies named, but is itself a great manufacturing concern, and it also directly controls a large number of other subsidiary companies. The field of the American Tobacco Company and these subsidiary companies includes the manufacture of chewing and smoking tobacco, of cigarettes for domestic consumption, and of so-called little cigars, together with enterprises contributory to these branches of tobacco manufacture.

The American Snuff Company, with its subsidiary companies, is exclusively concerned with the manufacture of snuff.

The American Cigar Company, with its subsidiaries, handles the cigar business of the Combination, including the manufacture of ordinary cigars, cheroots, and stogies in the United States and the manufacture of cigars and cigarettes in Cuba and Porto Rico.

The British-American Tobacco Company is distinguished from the others by being confined to export business and to the manufacture and sale of tobacco in foreign countries.

The American Tobacco Company holds considerably more than a majority of the capital stock of the American Cigar and British-American companies and over 40 per cent. of the stock of the American Snuff Company. By reason of the fact that certain large individual stockholders of the American Tobacco Company are also stockholders in the American Snuff Company, and by reason of the identity of purposes, the American Snuff Company may properly be considered as controlled by the American Tobacco Company.

THE SUBSIDIARY COMPANIES

Aside from these four principal companies, there are 82 other companies in the Combination which do business in the United States, Porto Rico, and Cuba, besides a considerable number controlled by the British-American Tobacco Company, which do business in other countries. In practically every one of these 82 companies a majority of the stock is held either by one of the four principal companies or by some company subsidiary to them. In a large number of cases the entire stock of these subsidiary companies is thus held. The Combination in buying stocks has apparently sought control even more than investment.

The American Tobacco Company itself controls directly or indirectly 47 of these subsidiary companies, aside from controlling the three principal subsidiary combinations. The American Snuff Company controls 6 other companies, the American Cigar Company 26, and the British-American Tobacco Company 3 (these 3 companies buy leaf and manufacture tobacco in the United States for export); the British-American also controls many subsidiary companies operating in other countries.

Consolidation in the Steel Industry

DEPARTMENT OF COMMERCE AND LABOR,
BUREAU OF CORPORATIONS,
WASHINGTON, July 1, 1911.

9.[1] SIR: I have the honor to submit herewith Part I of a Report on the Steel Industry. This part deals with the organization, investment, profits, and position in the industry of the United States Steel

[1] *Report of the Commissioner of Corporations on the Steel Industry*, part i, pp. xvii-xxiv. Washington, 1911. Submitted July 1, 1911.

EDITOR'S NOTE.—In 1911 the federal government brought suit against the United States Steel Company as a violator of the Sherman Act. In a four-to-three decision, two judges not participating, rendered in 1920, the Supreme Court ruled that the company had never and did not then possess a monopoly. Eliot Jones, *The Trust Problem in the United States*, pp. 438-440; 251 U. S. 417-466.

Corporation. Additional parts will be submitted later dealing with costs and with prices.

The basic industry of steel making affects the whole people of the United States. Its organization is a matter of public concern (not merely of private interest), and a great national resource, iron ore, lies at the foundation of the business.

The dominant concern is the United States Steel Corporation. There is here set forth (a) the causes of the formation of the Corporation; (b) its actual investment contrasted with its capitalization; (c) its rate of profits; and (d) its degree of control in the industry.

The Steel Corporation was the culmination and the result of a remarkable and even dramatic period in the steel industry. Until about 1898 the bulk of the business was distributed among a very considerable number of concerns. There was sharp competition, modified by frequent pools and price agreements of greater or less duration and effectiveness.

In 1898 began an era of great consolidations, with capitalizations ranging from $30,000,000 to $100,000,000, usually mergers of many smaller companies. In most of these, as in the earlier price agreements, the ruling motive was the removal of competition.

They did not, however, finally eliminate competition. On the contrary, a broad movement at once became apparent which threatened competition on a large scale and probably more severe than any in steel history. This was the process known as "integration."

The situation in 1899-1900 was as follows: There were three great companies—the Carnegie Company, the Federal Steel, and the National Steel—dominating the production of crude and semifinished steel. This may be called the "primary" group. Six other large concerns—the American Steel and Wire, American Tin Plate, American Steel Hoop, American Sheet Steel, National Tube, and American Bridge—severally controlled these lighter finished products. These formed the "secondary" group.

But, large as these concerns were, no one of them was entirely self-sufficient. The "secondary" group was dependent on the "primary" for its crude steel; the "primary" largely dependent on the "secondary" for a market for its products. Few were completely "integrated;" that is, few carried through under one control, with the accompanying advantages, the entire industrial process, from the ore to the finished product, linking up ore and coal mines, transportation, blast furnaces, steel works, rolling mills, and finished manufacture.

Immediately, however, came the next step. These great concerns almost simultaneously began the final linking up of the chain of production. Once begun by one concern, others followed in self-defense. The "secondary" companies began to reach back, acquiring ore reserves and crude steel plants. For example, in 1900 the Steel and Wire Company, whose supply of materials had previously been purchased mainly from the Carnegie or the Federal Company, planned

to make its own steel; likewise the National Tube Company. The "primary" concerns, finding these their chief customers turning into rivals, retaliated by reaching forward to the manufacture of finished products.

Paramount in importance was the ore. The recognition of that importance came strangely late, but, once recognized, it became an axiom that no large concern could stay in the business unless fortified by its own ore reserves. By 1900 the bulk of the Lake ores was in the hands of less than a dozen companies, with a similar concentration in coking coal.

Such efforts on the part of these great concerns, in striving each to "integrate," to make itself wholly independent, threatened to result in a great and sudden increase and duplication of the steel producing and finishing capacity of the country, and to involve them also in an invasion of each other's business.

Thus there was suddenly revealed to the industry what the trade press at the time called "the impending struggle of the giants" a contest between great concerns who under such circumstances might be forced to work out, in rigorous competition, the survival of the fittest.

Such were the conditions in the steel industry in 1900. The spark that lighted the train was the threat of the Carnegie Company to erect a great tube plant near Cleveland, thus invading the field of finished manufacture.

Steel men and the various associated financial interests regarded this situation with much alarm. In such competition they saw a great danger to their businesses, especially to the profitable quasi monopolies in certain branches of the trade. In averting it they also saw a great opportunity. The extraordinary era of industrial expansion was still on; the public were still eagerly absorbing large issues of securities. By merging these conflicting interests into a great corporation, the threatened "steel war" would be averted, and great profits realized from the flotation of securities.

With amazing swiftness, in a few weeks, the United States Steel Corporation was thus organized, and began business on April 1, 1901. Its total capitalization was a little over $1,402,000,000 (including bonds). It is strictly a "holding" company—that is, it does not mine, manufacture, transport, or sell; it simply owns the stock (as a rule all the stock) of its constituent concerns. The concerns acquired were as follows:

Acquired 1901	Acquired subsequently
Carnegie Company (of New Jersey).	Union Steel Company (1902).
Federal Steel Company.	Clairton Steel Company (1904).
National Steel Company.	Tennessee Coal, Iron and Railroad Company (1907).
American Steel and Wire Company	
American Sheet Steel Company.	
American Tin Plate Company.	
American Steel Hoop Company.	
American Bridge Company.	
National Tube Company.	

Bessemer Steamship Company.
Shelby Steel Tube Company.
Lake Superior Consolidated Iron Mines.

Thus competition between these concerns was eliminated, while enormous profits were made from the flotation of securities, with, also, an unparalleled stock commission to the underwriting syndicate, which netted a clear profit of about $62,500,000 in cash.

At its formation the United States Steel Corporation (referred to herein as the "Corporation") controlled about two-thirds of the country's production of crude steel, and from one-half to four-fifths of the principal rolled steel products. It comprised ore, coal, limestone, natural gas, railway and steamship companies, blast furnaces, steel works, rolling mills, finishing plants, and various other properties. It was thus a thoroughly integrated concern, from ore to finished products.

There remained outside the merger a number of great companies of the primary sort, such as Jones & Laughlin, the Pennsylvania, Cambria, Lackawanna, Republic and Colorado Fuel and Iron companies, and numerous concerns of the secondary type. While overshadowed by the Steel Corporation, these included strong, efficient, and growing businesses, furnishing a basis for vigorous competition.

Investment and Capitalization in 1901

The Steel Corporation is the greatest industrial concern in the United States, with the largest properties, and of international importance. It is the most conspicuous example of the modern corporate organization of great businesses. As such, the relation of its investment to its capitalization and to its earning power are matters of public concern. The Corporation itself has recognized this fact in its public reports, and has also furnished very extensive information to the Bureau.

The Corporation was organized with (in round numbers) 510 millions of preferred stock; 508 millions of common stock; 303 millions of Corporation bonds, and about 81 millions of underlying and miscellaneous obligations; a total of over 1,402 million dollars.

Speaking broadly, such capitalization amounted to the claim, the representation, that there was a value in this concern which would justify a fair business return on this capitalization. The Bureau finds, on the contrary, that in 1901 the fair market value of its tangible property was about 700 million dollars, slightly less than one-half of its capitalization. The other half, the excess of about 700 million dollars, is thus separated and stands out, embodying the essential public questions raised by the Bureau's analysis of its investment. In so far as that excess represented value in 1901, it was value due either to increased earning power from elimination of competition; concentrated ownership of the basic natural resources, iron ore and coal; or, in some degree, integration efficiency.

When such values are capitalized into dividend or interest bearing securities, they involve important public problems. They are merely another name for price policy, and the whole public is ultimately concerned in steel prices. For that sufficient reason the bulk of this part of the report is devoted to an analysis of the Corporation's investment.

These separate methods have been used in valuing its assets in 1901: (a) By historical study of the formation of constituent concerns; (b) by market values of the securities of constituent concerns; (c) by detailed estimates of physical properties, classified by departments of business. By the first method the valuation is $676,000,000; by the second, $793,000,000; and by the third, $682,000,000. None of these figures includes any merger, integration, or monopolistic factors arising from the combination of 1901. It is precisely the object of the Bureau to distinguish such values from ordinary property value.

The first valuation rests chiefly on evidence that the tangible property of most of the constituent concerns did not exceed the preferred stock. A cash option price was usually fixed by their promoters, and the original owners could take this, or an equal amount of preferred stock, with a bonus in common stock, in the new combinations.

This was the case with the National Steel, American Tin Plate, American Sheet Steel, American Steel Hoop, American Steel and Wire, National Tube, and American Bridge companies. The Federal Steel Company's property somewhat exceeded its preferred stock. In the Carnegie Company, reliable book values indicate that its tangible assets did not exceed its bond issue. The property of the Lake Superior Consolidated Iron Mines was taken as equal to the par value of its stock.

This gives the valuations at the dates of organization. Adding now the surplus earnings of these concerns up to April, 1901, plus the new cash provided for the Corporation, and sundry miscellaneous obligations representing property, gives the total stated above, $676,000,000.

Valuation by market prices of the securities of constituent companies (second method) gives about $793,000,000, or $117,000,000 more than the preceding valuation. Such excess is natural, as this method necessarily covers all property, including intangible merger values in these consolidations prior to the Steel Corporation.

The valuation by departments (third method), the most detailed and conclusive, was as follows:

Manufacturing properties, including blast furnaces	$250,000,000
Transportation properties	91,500,000
Coal and coke properties	80,000,000
Natural gas and limestone properties	24,000,000
Current assets	136,500,000
Ore properties	100,000,000
Total	$682,000,000

In July, 1902, in defending its capitalization, the Corporation itself made an estimate similarly classified. If we omit iron-ore properties in each case, that estimate exceeded the third valuation by the Bureau by about $175,000,000 or 30 per cent. But in ore the Bureau's valuation was $100,000,000, while the Corporation's was $700,000,000, seven times as great, a difference of $600,000,000. Thus the ore reserves, the dominant factor in the steel industry, are, in this valuation of its assets by the Steel Corporation, made to stand for the excess of capitalization over value of tangible assets.

And it is true, as is thus tacitly assumed by the Corporation itself, that in these ore holdings, under the present status of ownership and control, there exists an earning power and a control of the industry on which rest largely those ultimate intangible merger values which must be invoked in any attempt to justify its great capitalization.

The determination of the ordinary market value of this ore in 1901 segregates such ordinary value from the peculiar merger and combination values evidently attributed to it by its owner. The Bureau's valuation of $100,000,000 for the ore was reached by a study of market prices for similar properties about 1901; from the price paid by the Corporation for a large part of its own holdings; and from a calculation of the "present worth" of the royalties paid on leased ore. There was a marked agreement in the results by these various methods, and it is certain that $100,000,000 is a liberal figure.

To sum up: The actual market value of the Steel Corporation's entire tangible properties at its formation, omitting all factors of merger, integration, and concentration, was not over $700,000,000, just about one-half its capitalization.

The Bureau does not assume to say that the capitalization should have been one-half what it was, or indorse at this time any particular theory of capitalization. It has simply separated the market value of physical property in this vast concern from value based on earning power derived from intangible factors. It has defined these intangible factors and pointed out their peculiar relationship to price policy and the public interest, to wit, merger value, integration value, monopolistic value, and above all the incalculable industrial power that rests on the control of the bulk of the available iron ore of the country.

1901-1910

Increases in Property.—Since its formation, the Corporation, from surplus earnings (allowing for depreciation and changes in securities), has made good much of the original excess of its capitalization over tangible property. That excess in 1901 was about 700 million dollars, or 100 per cent, and in 1910 only about 280 million dollars, or 24 per cent. The total tangible value in 1910 was 1,187 million dollars. As in 1901, there is omitted here all the merger values heretofore referred to, and all appreciation of natural resources above the actual cost thereof to the Corporation.

Profits.—The rate of profit has been calculated, not on the Corporation's capital stock, but on the total investment as computed by the Bureau. Operating, administrative, and general expenses, as well as taxes, have been deducted from earnings; also depreciation, a matter of some intricacy. The Corporation's allowance for depreciation, including mineral exhaustion and obsolescence, has exceeded a necessary allowance. The Bureau has carefully determined from the records of the Corporation the proper depreciation, and has restored the excess to profits.

Thus arrived at, the average rate of profit on actual investment from April 1, 1901, to December 31, 1910, was 12 per cent. It was highest in 1902, 15.9 per cent, and lowest in 1904, 7.6 per cent. The yearly rates do not indicate any pronounced tendency, but have on the whole slightly decreased.

It must be remembered, however, that 12 per cent profit for one small concern out of many is one thing. Other concerns may make much less. It is a very different thing when, as in this case, one-half of the whole industry has been maintained on the level of a 12 per cent profit.

It must be made entirely clear that this 12 per cent is the rate of profit on the whole investment. Were that part of the investment deducted which may be said to be borrowed money, chargeable only with a low fixed rate of return, the rate on the remainder, on that part which may be considered as put in by the stockholders, would be considerably higher.

Position in the Industry.—While in production the Steel Corporation from the beginning has overshadowed its principal rivals, and even exceeded all of its competitors combined, its proportion of the total has materially diminished in the ten years of its operation.

In pig iron production, the Corporation has just about maintained its original position; in 1901, 43.2 per cent; in 1910, 43.4 per cent. But in steel, both crude and finished, it has lost ground; in 1901, 66 per cent of the steel ingots and castings; in 1910, only 54 per cent, notwithstanding great additions to its capacity. Rolled steel products generally show an almost steady loss, especially structural shapes and tin plate. Even in rails there has been no gain.

In short, speaking broadly, as against 60 per cent of all crude and finished steel production in 1901, the Corporation now has not much over 50 per cent, indicating conclusively the continuous presence of strong and increasing independent production. The competition of these independents with the Steel Corporation so far as prices are concerned has been modified by the policy of "coöperation." This will be discussed in a later part of the report.

In efficiency, location of plant, and equipment—in capacity rather than actual production—the Corporation is materially stronger than the foregoing figures indicate, and in case of continued trade depression this strength would probably show itself in increased control.

In ownership of railroads for handling its materials it stands in a class by itself. It has a strong but not exceptional position in water transportation. Its control of the best qualities of coking coal is very strong, though modified of late by new processes which make other coal more or less available for coking purposes.

Its position in ore reserves, on the other hand, is much stronger than in any other factor in the business. It is almost impossible, and would be unwise, to attempt any quantitative statement of its proportion of the total ore of the country; but of the Lake ores, on which the present steel industry is based, it has about 75 per cent, and this advantage is materially enhanced by its extensive control of the rail transportation of the ore from the mines to the Lakes. The so-called Hill lease made by the Corporation in 1907, with an unprecedentedly high rate of royalty and other onerous conditions, is a striking instance of the policy of the Corporation to maintain a high degree of control of ore. This lease covered enormous ore holdings.

There is much significance, also, in the prevailing custom of leasing ore mines under royalty instead of purchasing outright. This system as applied in the Lake ore region, without any effective restrictions as to size of holdings, plainly facilitates concentration of ore property, as it greatly reduces the investment required to control large bodies of ore. It has unquestionably had a large influence in producing the high concentration of control now existing in Lake ores, as well as elsewhere.

Thus, the industry itself rests physically on the ore; the Corporation based one-half its capitalization on the ore; its profits on ore, as will later be shown, are large; and in the ore is its highest degree of concentration and control. The ore, therefore, is of primary significance in the Corporation's dominance, and in that resource chiefly are involved the industry's problems of ultimate public interest.

Very respectfully,
HERBERT KNOX SMITH,
Commissioner of Corporations.

THE PRESIDENT

The International Harvester Company

10.[1] The International Harvester Company was organized in 1902 as a consolidation of the five principal manufacturers of harvesting machines in the United States, namely, the McCormick Harvesting Machine Co., Deering Harvester Co., Plano Manufacturing Co., the Warder, Bushnell & Glessner Co., and the Milwaukee Harvester Co. The companies thus consolidated had in 1902 about 90 per cent. of

[1] *United States Bureau of Corporations Report of The International Harvester Company* (March 3, 1913), pp. xvii-xx.

EDITOR'S NOTE.—This report was made while the federal government was prosecuting the International Harvester Company as a violator of the Sherman Anti-trust Act. Eliot Jones, *The Trust Problem in the United States,* pp. 435-438, 479-483.

the total production of grain binders in the United States, and about 80 per cent. of the total production of mowers, the two chief kinds of harvesting machines. The principal outside makers of harvesting machines were located in New York State, and their market was chiefly confined to the North Atlantic States and to the export trade.

The interests included in the combination had previously been in keen competition. An attempt made in 1890 to establish a general consolidation of makers of harvesting machines was a failure, and from that time until the merger, competition was severe. In fact, it has been asserted that the combination was virtually forced by such competition. However, the two most important concerns, namely, the McCormick and Deering companies, were making large profits just prior to the merger, and two of the other companies merged were making at least fair profits. Obviously, therefore, it cannot be contended that this competition was destructive.

It has been represented in formal testimony by officers of the company and its financial promoter, G. W. Perkins, then of the firm of J. P. Morgan & Co., that its organization was not the result of concerted action by the former competing owners, but merely of the purchase of their properties by new and outside interests. Documentary evidence gathered by the Bureau completely disposes of this contention and shows that the principal competing interests considered and discussed among themselves the formation of this combination and were active in bringing it about.

The chief features of the International Harvester Co.'s operations are the substantial maintenance of its monopolistic position in the harvesting-machine business, originally acquired through combination, and its extensions on a large scale into new lines of the farm-machinery industry. The company has been able to do this in part through the acquisition of some of its chief rivals in the harvesting-machine business; in part by using its monopolistic advantage in these harvesting-machine lines to force the sale of its new lines; in part by certain objectionable competitive methods; and especially through its exceptional command of capital, itself the result of combination.

Acquisitions of Competing Concerns

Almost immediately after its organization the International Harvester Co. commenced the acquisition of competing makers of harvesting machines. In January, 1903, it secretly acquired control of D. M. Osborne & Co., of Auburn, N. Y., its chief competitor. This secret control was maintained for nearly two years, during which the Osborne Company was operated and advertised as an independent concern. Two of the chief stockholders of the Osborne Company agreed to refrain from engaging independently in the same lines of business for a period of ten years. Again, the combination, between 1903 and 1904, acquired and secretly operated several other competing harvesting-machine concerns, namely, the Minnie Harvester Co., the Aultman-

Miller Co., and the Keystone Co. In some cases it was contended that the concealment of ownership was employed to facilitate liquidation of certain accounts of the purchased concerns.

Negotiations for the acquisition of several other harvesting-machine concerns were not consummated; in some cases the initiative came from the competitors.

Extension into New Lines

The company's acquisition of competitors in harvesting machines was followed by extension of its manufacture into numerous new lines, partly by the purchase of established concerns. Among the most important of such lines were tillage implements, manure spreaders, farm wagons, gasoline engines, tractors, and cream separators. The extension of the company into these lines was directly furthered by its substantially monopolistic control of the harvesting-machine business. It is obvious that the possession of a monopolistic position in that important branch of the business afforded a powerful lever for forcing the sale of its new lines.

Competitive Methods

The competitive methods employed by the company have been the subject of much complaint. Some of these complaints relate to practices which, like the use of the exclusive clause in agency contracts and the operation of purchased companies as independent, were at one time extensively practised, but which have since been abandoned. As above noted, some of these acquired concerns were openly advertised as independent.

Among the most important complaints charged against the company in recent years is an effort to secure an undue proportion of local dealers in farm machinery by allotting, as a rule, only a single brand to any one dealer in the same place, thus tending to restrict the outlet for competitors' goods. The company's own records show that this was one purpose at least in making this distribution of its brands, and it appears to have had some practical effect in handicapping competition.

Compulsion of dealers to take the company's "new" lines by reason of its monopolistic control of harvesting machines ("full-line forcing") has been attempted with more or less success by the company's representatives. Attempts to secure the exclusive handling of certain lines of the company by similar methods were also reported to the Bureau.

Special discriminatory prices and terms have been reported in a number of instances, but the general policy of the company is to maintain high prices in the monopolized lines; in the principal new lines, however, where considerable competition is encountered. unusually low prices and long terms have been generally employed.

Another rather general complaint is that salesmen of the International Harvester Co. represent that purchasers of competing lines of

harvesting machines will be unable to secure repair parts, a matter of much practical importance. Officers of the International Harvester Co. admit that this was at one time a common characteristic of competition in the harvesting-machine industry, but that the company is opposed to the practice and has used active efforts to eliminate it. The Bureau, however, received rather numerous complaints of this character.

The company at one time openly attempted, through a clause in its commission contracts, to control the price paid for its machines by the farmer to the retail dealer. Since the elimination of this clause, "suggested" retail price lists have been rather generally circulated by some of its branch offices, apparently for the purpose of indirectly maintaining the retail price, although the company contends that these lists are intended for the use of its employees in furnishing information to purchasers and professes to discourage their issuance to dealers. It is evident, however, that it could completely stop this practice if it really wished to.

Superior Resources

The company's exceptional financial resources, including its connections with J. P. Morgan & Co. and John D. Rockefeller, constitute one of the chief sources of its power. They not only enable it to secure the economies of large-scale operations, which, as a rule, give it marked advantages in manufacturing costs, but also enable it to maintain a very elaborate selling organization, by virtue of the variety and extent of its business. Furthermore, they give it a great advantage in extending credits to purchasers, an exceedingly important feature of the farm-machinery industry. While apparently any such use of credits has not been a controlling factor in restricting competition, it appears to have been felt to some extent in certain lines, and is one of the chief sources of complaint from manufacturers as distinct from dealers in farm machinery.

Present Position

As a result of the developments and practices above described, the position of the combination has changed from that of a maker of harvesting machines only, until it is now an important factor in several other branches of the farm-machinery business. In manure spreaders it appears to have more than one-half of the business, and in disk harrows approximately 40 per cent.; and it is increasing its proportion in several other new lines, such as wagons and gasoline engines.

New competition has, however, begun to appear, especially from certain large plow and tillage implement makers, whose fields have been invaded by the combination, and who likewise have arranged to establish a "full line," that is, a large assortment of the chief kinds of farm implements. This new competition is apparently of great

significance. However, in 1911 the company still had about 86 per cent. of the production of binders, 78 per cent. of the production of mowers, and 72 per cent. of the production of rakes.

Interstate Commerce Commission Report on the New York, New Haven and Hartford Railroad Company, 1914

11.[1] Practices of the Company

RHODE ISLAND TROLLEYS

The purchase of the Rhode Island trolleys was another instance of millions wasted in acquiring properties that bring an annual deficit instead of a surplus, and constitute a liability instead of an asset in the New Haven system.

The trolley lines of Providence and vicinity are operated by the Rhode Island Company under a 999-year lease. To acquire control of this company the New Haven expended in money and securities $24,352,336.41. The Rhode Island Company represents a cash investment of only $9,685,500, which was expended for improvements and extensions, being the par value at $100 per share of 96,855 shares of capital stock issued. All of this stock is owned by the New Haven; 53,510 shares were acquired from the New England Navigation Company on May 18, 1908, in exchange for certain notes of the New England Investment & Securities Company, the stock in certain Massachusetts trolley companies, and in liquidation of cash advances to the Navigation Company. The remaining shares were acquired through cash advances direct to the Rhode Island Company.

The Navigation Company obtained the stock of the Rhode Island Company through merger of January 31, 1908, with the Providence Securities Company, which company then owned this stock. The Providence Securities Company acquired the stock by issuing $19,899,000 of its debentures in exchange for the securities of the Rhode Island Securities Company, and it was through this exchange that the New Haven obtained its control of the Rhode Island property.

The Rhode Island Securities Company was then wound up. The Providence Securities Company now exists only in name since its merger with the Navigation Company, but its debentures, amounting to $19,899,000, still stand as a liability of the Navigation Company

[1] *Interstate Commerce Commission, No. 6569. In re Financial Transactions of the New York, New Haven and Hartford Railroad Company,* pp. 41-43. Report submitted to the Senate July 11, 1914.

Editor's Note.—In response to a resolution adopted by the Senate on February 7, 1914, the Interstate Commerce Commission made an investigation of the New York, New Haven and Hartford Railroad Company and reported on July 11 recommending civil and criminal prosecution of the responsible directors of the road and also of the persons involved in the several stock deals condemned in the report. The federal government as a result of the disclosures brought suit under the Sherman Anti-trust Act for dissolution. W. Z. Ripley, *Railroads; Finance and Organization,* pp. 441-443; 462-473, N. Y., 1925.

and bear 4 per cent interest. These debentures are guaranteed by the New Haven road, both as to principal and interest.

The interest on the Providence Securities Company's debentures is paid by the Navigation Company. Taking into account this expenditure and the interest on the money which the New Haven has invested in the Rhode Island trolleys, these properties have stood the New Haven system an average annual loss of approximately $648,680.

The evidence shows that the Rhode Island trolley transactions were deliberately entered into with a full knowledge of the large deficit that they would bring, and with the determination to acquire trolley control in Providence regardless of expense.

A committee of the board of directors of the New Haven had been appointed for the purpose of looking into the Providence trolley situation, with a view of purchasing that property, and this committee, after considering the proposition, reported adversely. Not content to abide by this action of his board, Mr. Mellen, after some six months, revived the matter. This was done after a conference between Mr. Mellen and former Senator Nelson W. Aldrich, who was largely interested in the United Traction & Electric Company, the largest lessor company.

The United Gas Improvement Company, of Philadelphia, that controlled this property under lease, had capitalized the future hopes of the proposition into a holding company known as the Rhode Island Securities Company and had issued $19,899,000 of debentures, which represented an investment of approximately only $6,000,000. The difference in these amounts was, as Mr. Mellen testified, merely capitalized water.

Not to be deterred by extravagant expenditure, Mr. Mellen undertook to exchange the debentures of the Providence Securities Company, which he had created for the purpose, for these debentures of the Rhode Island Securities Company, and to add thereon the guaranty of the New York, New Haven & Hartford Railroad Company, both as to principal and interest. The result of the transaction was to enable the United Gas Improvement Company to realize par value on these securities based merely upon lively expectation of future possibilities, and thereby immediately placed the burden of the watered stock upon the backs of the New Haven stockholders.

The millions that were made from this transaction did not come through magic, but were brought into existence at the expense of the stockholders of the New Haven, upon whom and the public the yoke of giving value to these securities ultimately rested, and the New Haven stock was diluted to the extent of the water thus added. This gas company also owned some Connecticut trolley lines, and it was made a further condition of the Rhode Island trolley acquisition that the New Haven take over these properties.

When the details had been worked out by Mr. Mellen for the assuming of this additional burden the board of directors without question

acquiesced. Mr. Mellen testified that these Connecticut trolleys represented a payment of about $10,000,000 more than their value.

This transaction seems such an extravagant purchase as makes it a matter of interest just who owned the securities of the Rhode Island Securities Company. This information could be furnished from the stock books of that company, but during the progress of this investigation it was learned that these books had also been burned. A detailed report on the Rhode Island trolleys is to be found in the appendix made a part hereof, Exhibit B.

The Rhode Island and Connecticut trolley ventures are further evidences of the prodigality in the expenditure of the money of the New Haven stockholders in carrying out an unlawful policy of transportation monopoly.

Financial Ruin of the New Haven

12.[1] The result of our research into the financial workings of the former management of the New Haven system has been to disclose one of the most glaring instances of maladministration revealed in all the history of American railroading. In the course of the investigation many instances were uncovered of violation of the laws of different states.

The difficulties under which this railroad system has labored in the past are internal and wholly due to its own mismanagement. Its troubles have not arisen because of regulation by governmental authority. Its greatest losses and most costly blunders were made in attempting to circumvent governmental regulation and to extend its domination beyond the limits fixed by law.

The subject matter of this inquiry relates to the financial operation of a railroad system which, on June 30, 1903, had a total capitalization of approximately $93,000,000, of which $79,000,000 was stock and $14,000,000 bonds. In the ten years from June 30, 1903, this capitalization was increased from $93,000,000 to $417,000,000, exclusive of stock premiums, or an increase of $324,000,000. Of this increase approximately $120,000,000 was devoted to its railroad property and was expended for betterments and equipment. This leaves the sum of $204,000,000, which was expended for operations outside of its railroad sphere. Through the expenditure of this sum this railroad system has practically monopolized the freight and passenger business in five of the states of the Union. It has acquired a monopoly of competing steamship lines and trolley systems in the section which it serves. The financial operations necessary for these acquisitions, and the losses which they have entailed, have been skillfully concealed by the juggling of money and securities from one subsidiary corporation to another.

[1] *Interstate Commerce Commission, No. 6569. In re Financial Transactions of the New York, New Haven and Hartford Railroad Company,* pp. 33-35. Report submitted to the Senate July 11, 1914.

Significant Incidents

Marked features and significant incidents in the loose, extravagant and improvident administration of the finances of the New Haven as shown in this investigation are the Boston & Maine despoilment; the iniquity of the Westchester acquisition; the double price paid for the Rhode Island trolleys; the recklessness in the purchase of Connecticut and Massachusetts trolleys at prices exorbitantly in excess of their market value; the unwarranted expenditure of large amounts in "educating public opinion"; the disposition, without knowledge of the directors, of hundreds of thousands of dollars for influencing public sentiment; the habitual payment of unitemized vouchers without any clear specification of details; the confusing inter-relation of the principal company and its subsidiaries and consequent complication of accounts; the practice of financial legerdemain in issuing large blocks of New Haven stock for notes of the New England Navigation Company, and manipulating these securities back and forth; fictitious sales of New Haven stock to friendly parties with the design of boosting the stock and unloading on the public at the higher "market price"; the unlawful diversion of corporate funds to political organizations; the scattering of retainers to attorneys of five states, who rendered no itemized bills for services and who conducted no litigation to which the railroad was a party; extensive use of a paid lobby in matters as to which the directors claim to have no information; the attempt to control utterances of the press by subsidizing reporters; payment of money and the profligate issue of free passes to legislators and their friends; the investment of $400,000 in securities of a New England newspaper; the regular employment of political bosses in Rhode Island and other states, not for the purpose of having them perform any service but to prevent them, as Mr. Mellen expressed it, from "becoming active on the other side"; the retention by John L. Billard of more than $2,700,000 in a transaction in which he represented the New Haven and into which he invested not a dollar; the inability of Oakleigh Thorne to account for $1,032,000 of the funds of the New Haven intrusted to him in carrying out the Westchester proposition; the story of Mr. Mellen as to the distribution of $1,200,000 for corrupt purposes in bringing about amendments of the Westchester and Port Chester franchises; the domination of all the affairs of this railroad by Mr. Morgan and Mr. Mellen and the absolute subordination of other members of the board of directors to the will of these two; the unwarranted increase of the New Haven liabilities from $93,000,000 in 1903 to $417,000,000 in 1913; the increase in floating notes from nothing in 1903 to approximately $40,000,000 in 1913; the indefensible standard of business ethics and the absence of financial acumen displayed by eminent financiers in directing the destinies of this railroad in its attempt to establish a monopoly of the transportation of New England. A combination of all these has resulted in the

present deplorable situation in which the affairs of this railroad are involved.

Dummy Companies and Donations to Politics

13.[1] Dummy Companies

The frequency with which dummy corporations and dummy directors appear in this record leads to the conclusion that some one high in the counsels of the New Haven had an obsession upon the subject of the utility of such sham methods. The directors of the Billard Company confessed that they were dummies and knew nothing of its operations. Why men of respectability and standing as these appear to be should lend their names as dummies passes comprehension.

In the organization of one of the steamship companies the young lady stenographer was made president; and a youth of 21 years of age by the name of Grover Cleveland Richards was selected as treasurer of another company.

Clerks and irresponsible persons were drawn upon to supply the demand for dummies in the financial joy riding by the management of the New Haven. Mellen's stock in the New England Investment & Securities Company was held by James B. Brady, who testified that he was merely a dummy for Mr. Mellen. Director Skinner's stock in this same company was held by a relative and a bookkeeper in his office.

Thus, throughout the entire story of deception, the New Haven management vainly endeavored to hide the true facts behind these dummy individuals and dummy corporations.

As a matter of law, such devices are feeble and puerile, but if the master financiers behind these New Haven transactions could use these sham methods and thus give their indorsement to the availability of such crooked schemes to cover the true substance and fact of financial transactions it indicates a low state of financial morality. No condemnation can be too severe to apply to the frequent use of these companies by the New Haven.

While in many states there are safeguards established by law, in other states there is such a prodigality in the creation of corporations as to greatly prejudice the interests of investors, creditors, and the public welfare generally.

While stock in the New Haven road was listed on the New York Stock Exchange a large portion of its funds were invested in "blue sky" corporations, the officers of which knew nothing of the purposes or assets of the companies of which they were managers or officers.

Large Purchases Without Bids

Purchases of cars and coal are two large expenditures that railroads make. The New Haven purchased cars almost exclusively from

[1] *Interstate Commerce Commission, No. 6569. In re Financial Transactions of the New York, New Haven and Hartford Railroad Company,* pp. 60-62. Report submitted to the Senate July 11, 1914.

James B. Brady without competition and to the extent of some $37,000,000. Mr. Brady, as a witness, made no secret of his generosity to the officials with whom he had business. His methods were justified by him on the ground that the officers of the New Haven were old friends.

Locomotives were purchased from a company in which a director of the New Haven was also a director. Many supplies obtained by the New Haven were from companies having directors who were also directors of the New Haven.

Corporate economy is not practicable where gifts and obligations arising from friendship tend to obscure official duty.

Political Contributions

The New Haven Railroad had no politics. It was Democratic in Democratic states and Republican in Republican states. As Mr. Mellen testified, its effort was always to "get under the best umbrella."

Payments made for political purposes totaled a large sum.

For instance, in 1900, $50,000 was contributed by the New Haven for campaign purposes through J. P. Morgan & Company. No proper and complete voucher for this payment appears on the books of the New Haven Company.

In 1904 a payment of $50,000 was made through Mr. Mellen for political purposes. This was secretly done and not reported to the directors or stockholders or in any manner made public.

No public-service corporation may rightfully use corporate funds to promote a political cause or to support a political candidate or a political party.

A corporation as such has no political principles to maintain and no political candidates to support.

The revenues of a public-service corporation are for the most part derived from the exercise of the right delegated to it by the sovereign power to tax the public by fixed rates established in accordance with law. Shippers and the traveling public may be presumed to be divided in political opinion. Corporate revenue derived by public tax from men of one political conviction cannot be used to support the fortunes of a candidate or party of contrary political principles.

Regardless of the injustice to stockholders and travelers belonging to another party which results from such use of funds, the withdrawal from corporate use and the diversion to political use is illegal and indefensible.

Corporate funds may not be used for other than corporate purposes.

That there was, at the time of such taking and diversion from corporate use, no express statute making such acts criminal, in no degree justifies or renders lawful such indefensible use of corporate funds. It was always dishonest.

The state itself may not use public funds for other than purposes prescribed by law. No creature of the state can assert power of

which the state itself is devoid, to use money derived from a tax on shippers and travelers to promote the interests of any political party.

Nor is the "education" of the public upon economic issues any part of the province of a corporation such as here in question.

Such political and "educational" use of corporate funds is a gross injustice to the stockholders and the public.

How Wall Street Bankers Control the Railroads

14.[1] Mr. La Follette. It has been frequently suggested during debates in this body that railroad stockholders represent the vast body of our citizenship, and it is argued from this premise that legislation benefiting the holders of railroad securities benefits the people generally.

On the 25th day of March, 1919, the report of the Interstate Commerce Commission showed that there are, in round numbers, some 600,000 stockholders in the first-class roads, which roads represent 97 per cent of the traffic of the country. That report shows that the majority of the stock in each one of those roads and their subsidiaries is held by less than 20 of the big stockholders in each road.

The report shows that less than 1.3 per cent of the stockholders of class 1 roads, numbering only 8,301 individuals control the stock. But we can by no means assume, upon these facts, that 8,301 individuals actually share in the control of the transportation system. The real power which today controls the railroads of the United States is the group of a dozen New York financial institutions which make up the New York banking combine.

In this group are the following financial institutions:

J. P. Morgan & Co.
The Guaranty Trust Co.
The First National Bank.
The Equitable Trust Co.
The American Surety Co.
The National Surety Co.
The Mutual Life Insurance Co.
The Equitable Life Assurance Society of the United States.
The Chase National Bank.
The National City Bank.
The Mechanics & Metals National Bank.
The New York Trust Co.

Members of the boards of directors of these banks control approximately 270 directorships of 93 class 1 railroads. The boards of the principal railroad systems do not often number more than 15 directors. The New York banks listed above average four or five members on the boards of each of the principal systems.

Taking the banks individually, the Guaranty Trust Co. has 50 railroad directorships; the National City Bank, 48; and the Equitable

[1] *Congressional Record,* ix, part 5, Appendix to parts 1-4, Sixty-sixth Cong., Third Sess., pp. 4618-4619.

Trust Co., 34. These three banks have a total of 132 railroad directorships. The Guaranty Trust Co. has a director on the board of each of 40 separate class 1 railroads.

Banking Control of Equipment and Supply Companies

The group of banks I have named not only controls the railroads, but it is heavily interested in the leading concerns which produce railway supplies and equipment. These New York banks hold at least 54 directorships in the so-called "outside" equipment and supply concerns, whose contracts with the railroad are now under investigation by the Interstate Commerce Commission. The New York banks hold directorships distributed among 20 equipment corporations, as follows:

Directors on the board of—

Baldwin Locomotive	2
American Locomotive	4
American Brake Shoe & Foundry	4
Midvale Steel, which controls Cambria Steel	6
American Car & Foundry	1
Standard Steel Car	1
Woodman Iron Co.	1
New York Air Brake	2
Westinghouse	3
Bethlehem Steel	4
United States Steel	3
Lackawanna Steel	3
Pullman Co.	4
Haskell & Barker	3
Safety Car Heating & Lighting Co.	2
Railway Steel Spring	2
Lima Locomotive Works	3
Pressed Steel Car	2
Southern Wheel	2
Rail Joint Co.	2

The extent to which the New York banking combine, through its railroad interests, controls the equipment companies is not adequately shown by this list of directorships. By a system of interlocking directorships the Franklin Railway Supply Co., the American Steel Foundries, and the Canadian Car & Foundry Co. are brought into the group of repair companies I have named. William H. Woodin, president of the American Car & Foundry Co., is a director of the Canadian Car & Foundry Co. and a member of the executive committee of the American Locomotive Co. Mr. Woodin's connection with these three concerns is regarded by financial papers as evidence that a controlling interest in each of them is held by the National Surety Co., whose five directors are representatives of the National City Bank and the Morgan banking group.

S. M. Van Clain, president of the Baldwin Locomotive Co., is also a director of Westinghouse, Midvale, and Cambria Steel. Another example of the close relationship between the equipment concerns and the railroad interests is the presence on the board of directors of the Pullman Co. of J. P. Morgan and George F. Baker. The relations between the equipment companies themselves are so close that many of them may be said to be mere subsidiaries of parent corporations. The Baldwin Locomotive Works owns the entire capital stock of the Standard Steel Works, which manufactures steel tires, steel-tired wheels, rolled and forged wheels, steel castings, railway springs, and so forth. The American Locomotive Co. has a similar subsidiary, the Penn Seaboard Corporation, which produces the materials used by the American Locomotive Co. The American Steel Foundries Co., which already had seven plants, recently acquired control of the Griffin Wheel Co., the largest manufacturer of steel wheels in the world. The close relations between these concerns makes subcontracting and cumulative profits a simple matter. It is interesting in this connection to see that the profits of the Standard Steel Works, a subsidiary to the Baldwin Locomotive Works, during three years—1916, 1917, and 1918—averaged $4,000,000 a year, or a million dollars more than the capital stock of the corporation.

Formation of the Meat Trust

Evidence of Combination

15.[1] We now examine the character and extent of the relations which exist between these five big packers, with a view to discovering not only whether these relations are contrary to law, but what their effect is upon food production and the general prosperity of the country. The evidence of present-day activities is illuminated by a brief history of these companies and their relationships.

In the first place, these five corporations began as individual enterprises with small capital and, with the exception of Wilson & Co., Inc., have been, for two or more generations, under the management of the same families which established them.

Two of these concerns—Armour and Morris—are and always have been close corporations, with stocks almost entirely in the hands of the families. The Cudahy Packing Co. was a close corporation until recently. Its stock is now listed for sale to the public, but it is still dominated by the Cudahy family. The fourth, Swift & Co., although having a large number of stockholders, is now and has always been completely under the control of the Swift family. The 20,000 stockholders, widely advertised as Swift & Co., have never had even

[1] *Report of the Federal Trade Commission on the Meat-packing Industry,* pp. 45-48. Washington, 1919.

Editor's Note.—For the long story of the effort of the United States government to dissolve the "Meat Trust" see Eliot Jones, *The Trust Problem in the United States,* pp. 485-490.

an approximately complete list of subsidiaries and affiliated companies. Sulzberger & Sons Co., the predecessor of Wilson & Co., Inc., was also a close corporation, family-controlled. Today, as Wilson & Co., it has a large number of stockholders, but the absolute control of the corporation is vested in a voting trust, consisting of Thomas E. Wilson and four New York bankers—Charles H. Sabin, Harry Bronner, A. Barton Hepburn, and Elisha Walker.

Such concentration of ownership and control of these five companies in a small number of individuals made combination and conspiracy easy.

Furthermore, the Big Five are bound together by joint ownership to a large number of companies. In many cases these joint ownerships are not carried in the names of the principals, but, on the contrary, are concealed by all manner of devices. Thus, for example, Armour's and Morris's stock in the Union Meat Co. stands in the names of H. A. Chetham and H. J. Nelson, Swift employees, so that even the most careful scrutiny of the stockholder's list would leave the impression that the Union Meat Co. was merely affiliated with Swift & Co.

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History of the Conspiracy

The first public record of an inquiry into the relations of these corporations is the report made in 1890 by a committee of the United States Senate. After two years of investigation, this committee unanimously reported that there was an agreement between the then leading packers, namely, Armour & Co., Swift & Co., Nelson Morris & Co., Hammond & Co., to refrain from competition. The committee found, among other things, that there was collusion with regard to the fixing of prices and the division of territory and business. The conditions revealed by this investigation, it may be remarked, were in part responsible for the passage of the Sherman Antitrust Act on July 2, 1890.

This investigation and the passage of the Sherman Act, however, did not long prevent the big packers from combining, for it was admitted by Henry Veeder, under oath, in 1912, that from May, 1893, until May, 1896, representatives of the leading packing companies, Armour & Co., Armour Packing Co., Cudahy Packing Co., G. H. Hammond Packing Co., East St. Louis Dressed Beef & Provision Co., Morris & Co., and Swift & Co., met regularly every Tuesday afternoon in a suite of rooms leased in the name of Henry Veeder, who acted as secretary and statistician of these meetings. It is interesting, in view of certain important evidence developed in the present investigation, to note that the rent for these rooms and other expenses connected with these meetings were apportioned among the packers in proportion to their shipments of dressed beef. At these meetings the territory was divided and the volume of business to be done by each packer was apportioned upon the basis of statistics compiled by Veeder, penalties

being levied when any one of them exceeded his allotment in any territory. This was the first of the so-called "Veeder pools," conducted, it should be noted, by the same Henry Veeder whom we find acting now as the joint agent of the "Big Five" in various transactions.

From May, 1896, to January, 1897, no regular meetings were apparently held by the packers; but during the year 1897 Henry Veeder conducted what was known as a statistical bureau, which performed a part of the functions of the original Veeder pool.

In January, 1898, however, a new pool was established under the management of Veeder, differing from the original pool only in that Schwarzschild & Sulzberger took the place of the East St. Louis Dressed Beef & Provision Co., which has been absorbed by Morris & Co.; the penalties for overshipment were increased, and auditors were employed to verify the statements of the packers. This pool terminated early in 1902, probably as a result of the investigation then being made by the Department of Justice.

In May, 1902, the Department of Justice filed sweeping charges of conspiracy and restraint of trade against the big packers and asked for an injunction. The charges were not specifically controverted, and after some delay and slight modifications a permanent injunction was issued by the Supreme Court of the United States on May 26, 1903.

This injunction apparently terminated the pool, which exposure had made hazardous. But how little the big packers respected the courts of the Nation and feared its law is revealed by the fact, which has since come to light, that almost coincident with the application for an injunction the three largest—Armour, Swift, and Morris—secretly set to work to buy up many of their actual and potential competitors, with the object of forming a gigantic merger, monopolizing almost completely the entire meat industry. Cudahy and Schwarzschild & Sulzberger became in a minor degree parties to the merger plan, which progressed so far that more than a dozen corporations, valued at about $10,000,000, had been purchased, a million-dollar bond to insure good faith had been deposited by Armour, Swift, and Morris, and arrangements had been made through Kuhn, Loeb & Co. for a loan of $60,000,000 to finance the merger. All was going well until the head of Kuhn, Loeb & Co. foreseeing the approach of the "panic of 1903" refused to put through the financial arrangements and advised against the merger at the time.

The big packers thereupon decided to merge the properties which they had secretly acquired, and thus it was that the National Packing Co. came to be formed. Cudahy and Sulzberger were invited to purchase stock in the company, but declined to assume these additional obligations, probably for financial reasons. The entire stock of the National Packing Co. was therefore held by Armour, Swift, and Morris in proportion to the capital assets of the respective companies; that is to say, Armour & Co., 40.11; Swift & Co., 46.70; Morris & Co.,

13.19; and properties acquired by the National Packing Co. after its formation in 1903 were jointly paid for by the Armour, Swift, and Morris companies in the same proportion.

The board of directors of the National Packing Co. was made up entirely of representatives of the three big companies. When these directors met each Tuesday afternoon at 2 o'clock (the same day and hour as the old Veeder pool meetings) to decide on policies, prices, and buying and shipping plans they were, in fact, acting for all their joint interests, and no further communication was necessary. This simple and highly effective plan for interchanging information and fixing joint policies persisted undisturbed until, after the failure of the criminal suit against several of the big packers in 1911–1912, the threat of a civil suit brought about the dissolution of the National Packing Co. during July and August, 1912. The dissolution consisted in a distribution of the properties of the National Packing Co. among Armour & Co., Swift & Co., and Morris & Co., and left all the strong independents which had been absorbed into the National Packing Co. still in the hands of the packers.

The Meat Monopoly and the Bankers

Summary of Findings

16.[1] Five corporations—Armour & Co., Swift & Co., Morris & Co., Wilson & Co., Inc., and the Cudahy Packing Co.—hereafter referred to as the "Big Five" or "The Packers," together with their subsidiaries and affiliated companies, not only have a monopolistic control over the American meat industry, but have secured control, similar in purpose if not yet in extent, over the principal substitutes for meat, such as eggs, cheese, and vegetable-oil products, and are rapidly extending their power to cover fish and nearly every kind of foodstuff.

In addition to these immense properties in the United States, the Armour, Swift, Morris, and Wilson interests, either separately or jointly, own or control more than half of the export-meat production of the Argentine, Brazil, and Uruguay, and have large investments in other surplus meat-producing countries, including Australia. Under present shipping conditions the big American packers control more than half of the meat upon which the allies are dependent.

The monopolistic position of the Big Five is based not only upon the large proportion of the meat business which they handle, ranging from 61 to 86 per cent in the principal lines, but primarily upon their ownership, separately or jointly, of stockyards, car lines, cold-storage plants, branch houses, and the other essential facilities for the distribution of perishable foods.

The control of these five great corporations, furthermore, rests in

[1] *Report of the Federal Trade Commission on the Meat-packing Industry. Summary and part i,* pp. 31-33. Washington, 1919. Transmitted to President July 3, 1918.

the hands of a small group of individuals, namely, J. Ogden Armour, the Swift brothers, the Morris brothers, Thomas E. Wilson (acting under the veto of a small group of bankers), and the Cudahys.

A new and important aspect was added to the situation when the control of Sulzberger & Sons Co. (now known as Wilson & Co., Inc.) was secured, 1916, by a group of New York banks—Chase National Bank; Guaranty Trust Co.; Kuhn, Loeb & Co.; William Salomon & Co.; and Hallgarten & Co. The report of the committee appointed by the House of Representatives to "Investigate the concentration of control of money and credit" (the Pujo committee) states (p. 59): "Morgan & Co. controls absolutely the Guaranty Trust Co." The Chase National Bank, a majority of its stock being owned by George F. Baker, is closely affiliated with the First National Bank. William Salomon & Co. and Hallgarten & Co. are closely affiliated with Kuhn, Loeb & Co. Thus we have three of the most powerful banking groups in the country, which the Pujo committee classed among the six "most active agents in forwarding and bringing about the concentration of control of money and credit" now participating in the rapidly maturing food monopoly above described. The entrance of the bankers into the packing business, it should also be noted, was not at all displeasing to the big packers. J. Ogden Armour and Louis F. Swift were frequently consulted during the negotiations, and Paul D. Cravath is quoted by Henry Veeder as giving assurance that the final arrangements would be "more than satisfactory" to Armour and Swift.

The menace of this concentrated control of the Nation's food is increased by the fact that these five corporations and their five hundred and odd subsidiary, controlled, and affiliated companies are bound together by joint ownership, agreements, understandings, communities of interest, and family relationships.

The combination among the Big Five is not a casual agreement brought about by indirect and obscure methods, but a definite and positive conspiracy for the purpose of regulating purchases of live stock and controlling the price of meat, the terms of the conspiracy being found in certain documents which are in our possession.

There are undoubtedly rivalries in certain lines among the five corporations. Their agreements do not cover every phase of their manifold activities, nor is each of the five corporations a party to all agreements and understandings which exist. Each of the companies is free to secure advantages and profits for itself so long as it does not disturb the basic compact. Elaborate steps have been taken to disguise their real relations by maintaining a show of intense competition at the most conspicuous points of contact.

The Armour, Swift, Morris, and Wilson interests have entered into a combination with certain foreign corporations by which export shipments of beef, mutton, and other meats from the principal South American meat-producing countries are apportioned among the several companies on the basis of agreed percentages. In conjunction

with this conspiracy, meetings are held for the purpose of securing the maintenance of the agreement and making such readjustments as from time to time may be desirable. The agreements restrict South American shipments to European countries and to the United States.

Since the meat supplies of North and South America constitute practically the only sources from which the United States and her allies can satisfy their needs for their armies, navies, and civil populations, these two agreements constitute a conspiracy on the part of the Big Five, in conjunction with certain foreign corporations, to monopolize an essential of the food of the United States, England, France, and Italy.

The power of the Big Five in the United States has been and is being unfairly and illegally used to—

Manipulate live-stock markets;
Restrict interstate and international supplies of foods;
Control the prices of dressed meats and other foods;
Defraud both the producers of food and consumers;
Crush effective competition;
Secure special privileges from railroad, stockyard companies, and municipalities; and
Profiteer.

The packers' profits in 1917 were more than four times as great as in the average year before the European war, although their sales in dollars and cents at even the inflated prices of last year had barely doubled. In the war years, 1915–'16–'17, four of the five packers made net profits of $178,000,000.

Government Ownership or Regulation of Coal?

17.[1] Both the Congress and the American people are concerned in the questions whether in the anthracite industry a reasonable return on investment can be paid to the owners and operators, decent living conditions and an adequate wage based on American standards furnished to the mine workers, a proper return made to the railroads and the dealers, and coal be delivered to the patrons of the industry

[1] *Report of the United States Coal Commission Transmitted Pursuant to the Act Approved Sept. 22, 1922,* part i, pp. 1-2. Washington, 1925.

Editor's Note.—On March 31, 1922, the miners in the bituminous and anthracite fields went on strike, the first time that the workers in both fields had gone out simultaneously. So extensive was the strike that the Department of Labor estimated that 610,000 of the 795,000 workers in the industry were out in August. On July 10th President Harding proposed a thorough investigation by a federal commission, and that, pending their report, work should be resumed under the conditions existing on March 31st. Under an agreement approximating these suggestions the bituminous miners returned to work in late August and the anthracite workers in September. The Commission was in existence only eleven months, but it employed five hundred persons, spent a little less than $600,000 and submitted the most exhaustive fact-finding report ever made concerning any industry. Its chairman was John Hays Hammond. See Edward E. Hunt, F. G. Tryon and J. H. Willits (editors), *What the Coal Commission Found* (Baltimore, 1925).

at lower prices than those now charged. Furthermore, they want to know what can be done to assure an ample supply of anthracite and a constant flow from mine to consumer. Peace with justice in the industry is the first requisite, and economy is the second. To these inquiries the Coal Commission has directed its attention.

Ownership or Regulation?

The fundamental fact in the anthracite problem is that heretofore the limited and exhaustible natural deposits of this coal have been in the absolute private possession of their legal owners, to be developed or withheld from development at will, to be leased for such royalties as could be exacted, the product to be transported and distributed at such rates and in such manner as a double-headed railroad and coal combination might find most advantageous from the point of view of private profit, to be sold at such prices as could be maintained by the restriction of output and by the elimination of independent competitors through such means as the maintenance of freight rates burdensome except to those who, owning both mines and railroads, could afford to be indifferent as to whether their revenue came from the one source or the other.

The Commission does not recommend the abolition of existing property rights, however much might be said for the view that mineral deposits should have been held from the beginning as national rather than individual property. The commission does not recommend Government ownership either by purchase at present value or by expropriation. It does, however, hold the view that a limited natural monopoly like anthracite, held by a relatively small number of individuals, estates, and companies and supplying a necessity of life for millions of our people, cannot continue to be treated as if it were not affected by a public interest.

Coal is quite as much a public necessity as gas, street-railway service, or any other service or commodity that has been brought under public regulation. There should be no secrets from the public in regard to mining costs, profits, salaries, wages, or corporate relations. Banks and insurance companies are privately managed, because we have found by experience that they can be managed more efficiently and economically on the principle of individual responsibility. But, like railroads, they are required to report to a public authority and they are subject to such regulation in the public interest as experience may show to be necessary and public opinion may from time to time approve. The guiding principle in such enterprises is no longer maximum profit to the owners but maximum service to the public.

The time has certainly come to establish the same controlling idea in the anthracite industry. There is not yet a sufficient basis in knowledge or experience to determine what form of control or regulation will ultimately be most advantageous. What is clear is that in the operation of coal mines, as in the operation of railroads, telephones,

water companies, or banks, the public interest must be respected and served, and that this requirement places limitations on the rights of owners of coal lands, operators, mine workers, carriers, and dealers. The commission believes that the principle of individual and corporate responsibility should be maintained as most likely to insure economical and efficient management of the industry, and that the public interest may be adequately safeguarded by the creation of a governmental authority with power to require financial and operating reports, to prescribe uniform methods of cost accounting, and to determine the conditions under which coal may be shipped in interstate commerce.

The President of the United States should be authorized by act of Congress to declare that a national emergency exists whenever, through failure of operators and miners in the anthracite industry to agree upon the terms of employment or for any other reason, there is a suspension of mining operations, seriously interrupting the normal supply of anthracite fuel in interstate commerce, and to take over the operation of the mines and the transportation, distribution, and marketing of the product, with full power to determine the wages to be paid to mine workers, the prices at which the coal shall be sold, and, subject to court review, the compensation to be paid to landowners and mine owners.

On these subjects more definite recommendations will be reserved for the final report of the commission, since they apply to both branches of the industry.

The Coal Monopoly, 1923

18.[1] Supervision and Regulation of the Supply of Anthracite

The Government must go beyond continuous fact finding and publicity, important and elementary as these functions are.

Natural Monopoly.—The fundamental evil in the anthracite industry is that of monopoly—the treatment of limited natural resources as if they were like other private property. Reliance on competition without supervision has resulted in the persistence of a permanent level of high prices, above which extortionate increases were made whenever a suspension of mining or other disturbances gave rise to the phenomenon of premium coal. In the anthracite industry we have secured stability—which is desirable—but this end has been attained at high cost to the consumer. The public is just now concerned as to whether the increase of 10 per cent in the wages of anthracite miners is to be "absorbed" by operators, carriers, and dealers or passed on to consumers, just as it was outraged by the abnormally high prices of the winter of 1922–23. But, as shown in the commission's special report on anthracite, underneath these exceptional surface fluctuations there is a rising flood of costs and of prices which does not recede with the fall in the prices of commodities in general and which does not yield

[1] *Report of the United States Coal Commission Transmitted Pursuant to the Act Approved Sept. 22, 1922,* part i, pp. 267-268. Washington, 1925.

to such measures, entirely justifiable and desirable for other reasons, as the separation of mining from the railroads.

Margins and Profits.—The special report on anthracite shows that there are such inequalities in the wages of miners as to require a thorough revision of the entire wage scale, some miners obtaining wages much higher than are paid in other comparable occupations, while others fall far short of what is needed to furnish a living in accordance with American standards. It shows also that, together with these relatively low wages and the unsatisfactory living conditions of many of the miners, including those who derive least benefit from the recent 10 per cent increase in wages, there are excessive royalties and differential profits. Limitation of margins to a reasonable return on legitimate investment and the elimination of monopoly profits, whether in the form of royalties, operators' and dealers' margins, or freight rates, are perfectly reasonable demands of the public.

Graded Tax on Royalties and Differential Profits.—One remedy, short of price fixing or public ownership, remains in the hands of the Government for the protection of the public interest. This is the levy of a graded tax on royalties and differential profits. Such a tax would not lower the price of coal, but it would produce a public revenue without increasing the price of coal. The present sales tax imposed by the State of Pennsylvania on anthracite gives no such protection, even though it yields some $7,000,000 a year to the State. As it is a percentage on the f. o. b. mine price, it falls on the marginal high-cost producer, as on others, and even more heavily when he is selling at a higher price, and is therefore passed on to the consumer in the form of still higher prices. An excess-profits tax, as suggested above, under these monopolistic conditions would not be added to the price of coal and thus would not be passed along to the consumer, as it would fall only on those who have differential advantages. Thus, the Federal taxes in the five-year period 1917–1921 studied by the commission were lenient to the low-profit operator and bore more heavily on the high-profit operator, the range being from 2 cents a ton on a non-dividend-paying company to 28 cents on one of the most profitable companies.

Use of Other Fuels.—The main remedy, however, against extortionate prices lies in the consumer himself. There are substitutes for hard coal, and a readiness to resort to them is the ultimate and effective defense against an unreasonable price.

Financial Concentration and Domination, 1904

19.[1] The large diagram facing the Introduction gives an indication of the extent to which the Greater Trusts are dominated by that

[1] Moody, John, *The Truth About the Trusts* (1904), part vii, chap. ii, pp. 490-493. In granting permission to use this excerpt from his book Mr. Moody suggests that the fact should be emphasized "that these exhibits were made twenty-five years ago and therefore naturally do not apply at all to present conditions."

remarkable group of men known as the "Standard Oil," or Rockefeller financiers. These men, it will be seen, either entirely control or make their influence felt to a marked degree in all the Greater Trusts. They are in fact the real fathers of the Trust idea in this country, and, of course, have always been the controlling factors in that most far-reaching and successful of all Trusts, the Standard Oil Company. This latter corporation, with a par value capitalization of $97,500,000 absolutely dominates the oil industry of the United States, supplying 84% of the domestic demand of oil, and over 90% of the export demand. Furthermore, it produces in the neighborhood of 200 different by-products of oil, and in nearly all of these latter industries there are said to be large profits which contribute to an important extent in making up the enormous earnings of the Trust. The dividends of the Standard Oil Trust are more than $40,000,000 per year, and its net profits are reported to exceed over $60,000,000 per annum.

But it is not merely in oil and its allied industries that the Rockefeller interests are dominant. They are the controlling factors in the Copper Trust and the Smelters' Trust, and are also closely identified with the mammoth Tobacco Trust, which now practically encircles the globe. Furthermore, while not entirely dominant, they are interested in and display a marked influence in the great Morgan properties, such as the United States Steel Corporation. In the hundreds of smaller Industrial Trusts, the Rockefeller interests are also conspicuous in many ways. They dominate a variety of minor industries, and it was recently reported that they had acquired an important interest in the production of asbestos.

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Coming to the Franchise aggregations, we find that everywhere the Standard Oil influence is most prominent. The Rockefeller interests practically dominate the entire public-service aggregations of Greater New York, represented by over $725,000,000 of capital; they are allied in interest with the well-known United Gas Improvement Company of Philadelphia, which is itself the leading corporation of the famous Philadelphia or Widener-Elkins group, and which dominates the public-utility interests in a number of the largest centres of population in the United States, and in addition controls the lighting interests of a score or more of the smaller American cities.

And turning to the steam railroad field, we find that the Standard Oil interests are one of the conspicuous factors and are steadily increasing their influence there. One of the greater groups (the Gould-Rockefeller) is, of course, directly dominated by them; but, as a matter of fact, the Standard influence is felt quite forcefully in all the Railroad groups, and this influence is showing a steady growth throughout the entire steam railroad field. It is now freely predicted in Wall Street that the next decade will see the Rockefeller interests the single dominating force in the world of railway finance and control.

The great Rockefeller alliances in the railroad and industrial fields

are supplemented and welded together, as it were, through the New York city financial interests of the group. Their banking influence is of very great importance, and their ramifications are far-reaching and of great effectiveness. Thus, the Standard Oil chain of banking institutions, headed by the great National City Bank, with a capital and surplus of $40,000,000, and deposits exceeding $200,000,000, includes also the Hanover National Bank, the Second National Bank, the United States Trust Company, the Farmers Loan & Trust Company, the Central Realty Bond & Trust Company and a number of smaller institutions. Some of these banks (particularly the National City) have strong dominating influences with the larger banking institutions of other great cities. The Standard interests are also closely allied with the great life insurance companies, such as the Equitable and the Mutual of New York.

In fact, it is not possible to more than attempt an approximate estimate of the entire Standard Oil industrial, financial and commercial interests of the nation, as their ramifications are so varied and extensive that a clear line of demarcation could not be drawn which would absolutely distinguish the interests which are more or less dominated by them, from those which are not. . . .

The Morgan group of industries and transportation companies is, next to the Standard Oil interests, by far the most important. In fact, the only gigantic interests or groups which can in any sense be considered as on the same plane are the Rockefeller and Morgan groups. There are, it is true, a number of other large groups in special lines, but these two are the only distinctively great interests that dominate immense areas in all lines, steam transportation, public service, industrial, financial, banking, insurance and so forth. The great Morgan enterprises in the industrial world are the Steel and Shipping Trusts, the Electrical Supply Trust, the Rubber Trust, and a score or more of smaller aggregations. In the public-utility field the Morgan interests dominate a series of lesser enterprises, but have never been so conspicuous in these lines as have the Rockefeller financiers.

But it is in the railroad world that the Morgan influence makes its greatest claim for public attention. In Part V. of this book will be found figures indicating that the Morgan group of steam railroad properties embraces over 47,000 miles of lines, or nearly twice the mileage of any other one group; and its capitalization exceeds $2,265,000,000, a sum far in excess of that of any of the other five groups, and, in fact, amounting to nearly 25% of all the group railroad capital of the United States. The Morgan railroad properties are nearly all located in growing sections of the country, and there is probably a very small proportion of worthless and unprofitable mileage embraced in the various Morgan systems. Another feature about the Morgan group is that in most cases the lines embraced absolutely dominate certain sections of the country; such as, for instance, the entire South and the great Northwest.

The Morgan domination, like the Standard Oil, makes itself felt

through the means and influence of large metropolitan financial institutions and great banks, such as the National Bank of Commerce, First National Bank, Chase National Bank, and Liberty National Bank. The great life insurance companies, such as the New York Life, and trust companies, such as the Mercantile, Guaranty and Central Trust, are generally rated as being at least partially under the Morgan control.

It should not be supposed, however, that these two great groups of capitalists and financiers are in any real sense rivals or competitors for power, or that such a thing as "war" exists between them. For, as a matter of fact, they are not only friendly, but they are allied to each other by many close ties, and it would probably require only a little stretch of the imagination to describe them as a single great Rockefeller-Morgan group. It is felt and recognized on every hand in Wall Street to-day, that they are harmonious in nearly all particulars, and that instead of there being danger of their relations ever becoming strained, it will be only a matter of a brief period when one will be more or less completely absorbed by the other, and a grand close alliance will be the natural outcome of conditions which, so far as human foresight can see, can logically have no other result.

Around these two groups, or what must ultimately become one greater group, all the other smaller groups of capitalists congregate. They are all allied and intertwined by their various mutual interests. For instance, the Pennsylvania Railroad interests are on the one hand allied with the Vanderbilts, and on the other with the Rockefellers. The Vanderbilts are closely allied with the Morgan group, and both the Pennsylvania and Vanderbilt interests have recently become the dominating factors in the Reading system, a former Morgan road, and the most important part of the anthracite coal combine, which has always been dominated by the Morgan people. Furthermore, the Goulds, who are closely allied with the Rockefellers, are on most harmonious terms with the Moores of the Rock Island system, and the latter are allied in interest quite closely with both the Harriman and the Morgan groups. Therefore, viewed as a whole, we find the dominating influences in the Trusts to be made up of an intricate network of large and small groups of capitalists, many allied to one another by ties of more or less importance, but all being appendages to or parts of the greater groups, which are themselves dependent on and allied with the two mammoth or Rockefeller and Morgan groups. These two mammoth groups jointly (for, as pointed out, they really may be regarded as one) constitute the heart of the business and commercial life of the nation, the others all being the arteries which permeate in a thousand ways our whole national life, making their influence felt in every home and hamlet, yet all connected with and dependent on this great central source, the influence and policy of which dominates them all.

Financial Concentration and Domination, 1913—Report of the Pujo Committee

20.[1] Section 2—Fact of Increasing Concentration Admitted.

The resources of the banks and trust companies of the city of New York on 1911 were $5,121,245,175, which is 21.73 per cent of the total banking resources of the country as reported by the Comptroller of the Currency. This takes no account of the unknown resources of the great private banking houses whose affiliations to the New York financial institutions we are about to discuss.

That in recent years concentration of control of the banking resources and consequently of credit by the groups to which we will refer has grown apace in the city of New York is defended by some witnesses and regretted by others, but acknowledged by all to be a fact.

As appears from statistics compiled by accountants for the committee, in 1911, of the total resources of the banks and trust companies in New York City, the 20 largest held 42.97 per cent; in 1906, the 20 largest held 38.24 per cent of the total; in 1901, 34.97 per cent.

Section 3—Processes of Concentration

This increased concentration of control of money and credit has been effected principally as follows:

First, through consolidations of competitive or potentially competitive banks and trust companies, which consolidations in turn have recently been brought under sympathetic management.

Second, through the same powerful interests becoming large stockholders in potentially competitive banks and trust companies. This is the simplest way of acquiring control, but since it requires the largest investment of capital, it is the least used, although the recent investments in that direction for that apparent purpose amount to tens of millions of dollars in present market values.

Third, through the confederation of potentially competitive banks and trust companies by means of the system of interlocking directorates.

Fourth, through the influence which the more powerful banking houses, banks, and trust companies have secured in the management of insurance companies, railroads, producing and trading corporations, and public utility corporations, by means of stockholdings,

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[1] *Report of the Committee Appointed Pursuant to House Resolutions 429 and 504 to Investigate the Concentration of Control of Money and Credit* (House Report No. 1593, 62nd Cong., 3rd Sess., 1913), chap. iii, pp. 56, 86-97, 89-90.

Editor's Note.—On February 24, 1912, the House of Representatives passed a resolution directing its Committee on Banking and Currency to make an investigation into banking and currency conditions as a preliminary to framing legislation. A subcommittee set themselves to the task of discovering whether or not there existed a "money trust." Their report submitted the following year asserted that such a trust existed.

voting trusts, fiscal agency contracts, or representation upon their boards of directors, or through supplying the money requirements of railway, industrial, and public utilities corporations and thereby being enabled to participate in the determination of their financial and business policies.

Fifth, through partnership or joint account arrangements between a few of the leading banking houses, banks, and trust companies in the purchase of security issues of the great interstate corporations, accompanied by understandings of recent growth—sometimes called "banking ethics"—which have had the effect of effectually destroying competition between such banking houses, banks, and trust companies in the struggle for business or in the purchase and sale of large issues of such securities.

Section 4—Agents of Concentration

It is a fair deduction from the testimony that the most active agents in forwarding and bringing about the concentration of control of money and credit through one or another of the processes above described have been and are—

J. P. Morgan & Co.
First National Bank of New York
National City Bank of New York
Lee, Higginson & Co., of Boston and New York
Kidder, Peabody & Co., of Boston and New York
Kuhn, Loeb & Co.

Combined Power of Morgan & Co., the First National, and National City Banks.—In earlier pages of the report the power of these three great banks was separately set forth. It is now appropriate to consider their combined power as one group.

First, as regards banking resources:

The resources of Morgan & Co. are unknown; its deposits are $163,000,000. The resources of the First National Bank are $150,000,000 and those of its appendage, the First Security Co., at a very low estimate, $35,000,000. The resources of the National City Bank are $274,000,000; those of its appendage, the National City Co., are unknown, though the capital of the latter is alone $10,000,000. Thus, leaving out of account the very considerable part which is unknown, the institutions composing this group have resources of upward of $632,000,000, aside from the vast individual resources of Messrs. Morgan, Baker, and Stillman.

Further, as heretofore shown, the members of this group, through stockholdings, voting trusts, interlocking directorates, and other relations, have become in some cases the absolutely dominant factor, in others the most important single factor, in the control of the following banks and trust companies in the city of New York:

(*a*) Bankers Trust Co., resources	$250,000,000
(*b*) Guaranty Trust Co., resources	232,000,000
(*c*) Astor Trust Co., resources	27,000,000
(*d*) National Bank of Commerce, resources	190,000,000
(*e*) Liberty National Bank, resources	29,000,000
(*f*) Chase National Bank, resources	150,000,000
(*g*) Farmers Loan & Trust Co., resources	135,000,000
in all, 7, with total resources of	968,000,000
which, added to the known resources of members of the group themselves, makes	$1,600,000,000
as the aggregate of known banking resources in the city of New York under their control or influence.	
If there be added also the resources of the Equitable Life Assurance Society controlled through stock ownership of J. P. Morgan	504,000,000
the amount becomes	$2,104,000,000

Summary of Directorships Held by These Members of the Group.—Exhibit 134-B . . . shows the combined directorships in the more important enterprises held by Morgan & Co., the First National Bank, the National City Bank, and the Bankers and Guaranty Trust Cos., which latter two, as previously shown, are absolutely controlled by Morgan & Co. through voting trusts. It appears there that firm members or directors of these institutions together hold:

One hundred and eighteen directorships in 34 banks and trust companies having total resources of $2,679,000,000 and total deposits of $1,983,000,000.

Thirty directorships in 10 insurance companies having total assets of $2,293,000,000.

One hundred and five directorships in 32 transportation systems having a total capitalization of $11,784,000,000 and a total mileage (excluding express companies and steamship lines) of 150,200.

Sixty-three directorships in 24 producing and trading corporations having a total capitalization of $3,339,000,000.

Twenty-five directorships in 12 public utility corporations having a total capitalization of $2,150,000,000.

In all, 341 directorships in 112 corporations having aggregate resources or capitalization of $22,245,000,000.

The members of the firm of J. P. Morgan & Co. held 72 directorships in 47 of the greater corporations: George F. Baker, chairman of the board, F. L. Hine, president, and George F. Baker, Jr., and C. D. Norton, vice-presidents, of the First National Bank of New York, hold 46 directorships in 37 of the greater corporations; and James Stillman, chairman of the board, Frank A. Vanderlip, president, and Samuel McRoberts, J. T. Talbert, W. A. Simonson, vice-presi-

dents, of the National City Bank of New York, hold 32 directorships in 26 of the greater corporations; making in all for these members of the group 150 directorships in 110 of the greater corporations.

Concentration in Retailing

Non-chain Fields

21.[1] Finally, there are certain fields in which the chain has made practically no headway, such as hardware, jewelry, and perishable food products.

The hardware field has witnessed several strategically planned attempts to inaugurate chains. Some years ago, the National Hardware Chain failed to make a success. Recently, the Winchester Stores took a flying start, well-heralded, well-located, and well-advertised. But, like the drug store chain, which specializes in toilet articles, soda water, etc., the hardware chain finds that it sells little hardware and has rather the character of a sporting goods chain.

The jewelry field is also practically unoccupied by chain systems.

In other words, in those fields where the stock is very large, where the turnover is necessarily small, where it is difficult to cut prices, the chain store does not flourish.

The lack of chain success in the meat and fruit trade would seem largely due to the difficulty of supplying the various stores in accordance with demand. Furthermore, local sources of supply often have to be utilized and the uniformity of stock, which is so important a part of chain system, cannot be maintained.

The Grocery Field

The best view of chain store activities may be obtained in the grocery field. The familiar red fronts of that Goliath among chains, The Great Atlantic and Pacific Tea Company, are to be seen almost from one end of the country to the other. Hundreds of smaller chains have wide local or sectional distribution. The independent grocer is an enemy of the chain only until he has opened his second store.

It is important to note to what extent the grocery trade has been taken over by the chains. Ten years ago the chains were confined mainly to congested city districts. Five years ago they had spread to the suburbs. They have now reached the small town and rural community.

The grocery chain is definitely committed to a merchandising policy which includes "loss leaders" and private brands. It is also committed, however, to the policy of selling what the public demands. The chain takes the attitude that it is the function of the manufacturer to create public demand for his product. If he has not the capital nor the

[1] Haywood, Walter S., "The Chain Store and Distribution," reprinted from the *Annals* of the American Academy of Political and Social Science, September, 1924, vol. cxv, pp. 221-223. Philadelphia, Pa. Used by permission of the author and editors.

desire to do this, the chain cannot be induced to do it for him. The articles on the shelves of the grocery chain must be their own salesmen, and they must move, or make room for those that will.

The manufacturer who sells to the grocery chains must perforce be a national advertiser. The volume of his sales will depend upon the success of his advertising policy. He must compete with the chain's own private brands which, although unadvertised, are no mean rivals. They are either sold at a lower unit price, or a larger quantity is given for the same price. Furthermore, the chain takes every precaution to see that the quality of its own brands is exactly as represented.

What the manufacturer and jobber are primarily interested in knowing is the future potentialities of the grocery chain. The present trend is briefly this: All secondary considerations put aside, the chain store sells on a price basis; the independent grocer on a service basis. Each has its own clientele. When a chain store opens in a new locality, it will automatically obtain its quota of trade, provided there is no other chain competition. The independent retailer will have to resign himself to seeing a certain portion of his trade leave him. If there are too many independent retailers, the weaker ones will succumb. The grocery field, however, will only support a certain number of stores selling on a price basis. In the urban and suburban sections, this demand has already been taken care of. The great extension of the grocery chain at present is in the small town and rural community.

As in every case where there is great stimulation to growth, there is a tendency to go beyond the mark, with a consequent period of readjustment. Signs point to something of this sort occurring in the grocery chain field. There is a new phase of competition between chain and chain. It is the direction which this competition takes which should be closely watched. Obviously price cutting is no solution. Such a policy can end only in the survival of the strongest chain, and the absorption of its weaker rival.

Suppose, however, that some chain system announced its intention to operate on a service basis. "It cannot be done," says the sceptic. "Once remove the price attraction and the chain cannot survive against the individual service of the independent proprietor." This may be true, but it does no harm to point out that the chain still would have the advantages of combined purchasing power, of centralized management and of standardized retailing.

The Drug Chain

The situation in the drug field is by no means settled. To date, the large drug chain has been mainly a downtown proposition in urban centers.

The feature of its policy has been its ability to merchandise articles never before associated with drugs. It will sell anything from canary birds to hairnets, provided there is a demand for them. It has depart-

mentized its activities, and follows close on the heels of the department store in its scrutiny of customer habits and traits, consumer preferences, and other factors.

Like the grocery chain, the drug chain cuts prices on standard articles for "loss leaders." It may have private brands of its own, but so many of the drug chains consist of a few stores only that this is not the general rule. While it is not possible to reduce stocks to any small number of items, there is a settled endeavor to avoid untried innovations, and to carry only articles for which there is an established demand. The turnover of the drug chain, for this reason, is in excess of that of the independent drug store.

Like the grocery store, the true drug store is a neighborhood proposition. But the obstacles in the way of chain operation are greater because of the variety of stock necessary to carry, and the difficulty in maintaining adequate turnover without the large volume of trade secured only in downtown locations. There are, however, small chains which endeavor to operate drug stores in suburban locations, and which are moderately successful. There are undeniable possibilities along this line, but the great opportunities present in the grocery field are lacking.

The United Drug Company has utilized the chain idea in its extension of Rexall agencies. Instead of operating the store itself, it has induced the proprietor to sell its brand, and assists him with publicity and dealer helps.

The Five-and-Ten-Cent-Store Field

The five-and-ten-cent-store chains are among the most interesting of all. They have come to be All-American institutions, and no longer exist merely for the lower classes of society. Their tremendous selling power, based almost entirely on the display of the article, is well worth the manufacturer's careful attention. Purely as a source of sampling, many manufacturers of branded articles have found them to be advantageous. Other manufacturers have been able to dispose of surplus production to advantage through such channels. Still other companies have turned their entire energies to supplying the needs of the five-and-ten-cent chains.

The five-and-ten-cent field is one where there is virtually no independent competition. It would be practically impossible for any organization without huge buying power and great volume of sales to provide the variety and assortment of values now obtainable on the counters of the five-and-ten-cent store.

Unlike the grocery and drug chain, the five-and-ten-cent store originated in the small town, and only spread to the city in the later stages of its development. Its extension is, however, limited by the necessity of a certain minimum population in order to sustain a stipulated volume of sales.

The Kresge policy of raising the five-and-ten-cent limit to a dollar,

or the Grant policy of selling articles at even a higher value, tends to bring the five-and-ten-cent chains close to the dry goods chain.

Consolidation of Electric Power

22.[1] *Holding-company Control.*—A survey made by the Department of Agriculture in 1915 indicated that 85 large public-service corporations controlled 68.6 per cent of the total public-service power of the United States. Some 29 of these holding companies operated in more than one State. H. M. Byllesby & Co. in 1915 operated in 17 States; The H. L. Doherty interests in 14 States; and Stone & Webster in 13 States.[2] In 1925, 10 years later, the number of holding companies, notwithstanding a five-year period of holding-company consolidations from 1920 to 1925, had increased to about 135.[3] In many cases two or more of these companies are controlled either financially or through operating management by a single super-holding company or operating and management company interest. The number of States in which large interests operate had increased rather than decreased. In 1926 the Insull interests operated in 20 States and in Canada and Mexico; H. M. Byllesby & Co. in 18 States; H. L. Doherty & Co. in 19 States; and Stone & Webster in 17 States.

In securing the data summarized in Part I of this report schedules were sent to about 3,660 holding companies, independent operating companies, and municipal plants. One question of these schedules requested capacity, the name of the maker, and the year of installations of each generating unit in use in 1925. Excellent coöperation was met from all three groups in filling out and returning schedules covering a total of 20,030,496 kilowatts of generating capacity for the year 1925, or nearly 85 per cent of the estimated total generating capacity of the United States. Table 34 shows the kilowatt capacity controlled by 22 holding-company groups and 11 large independent companies, each of which reported ownership or control of generating capacities of more than 100,000 kilowatts, as well as the generating capacities grouped together of a number of small holding companies, independent companies, and municipal plants.

Of the more than 20,000,000 kilowatts of installed generating capacity covered in 1925, over 15,250,000, or 76.5 per cent, were in stations controlled by holding-company groups, 4,000,000, representing 20.5 per cent, were reported by independent operating companies, and nearly 600,000, or 3 per cent, were in municipal plants. Twenty-two holding-company groups controlled 60.6 per cent of the total, while 11 large independents controlled 17.8 per cent. The largest single holding was that of the Electric Bond & Share group, representing 11.7 per cent of the total reported. The combined capacities of the

[1] *Electric Power Industry, Supply of Electrical Equipment and Competitive Conditions,* 70th Cong., 1st Sess., Senate Doc. No. 46, pp. 174-178.

[2] *Electric Power in the United States.* U. S. Department of Agriculture, 1915, pp. 58-59.

[3] Address to Pittsburgh Bond Club by Samuel Insull.

11 largest interests reporting, including 8 holding and 3 independent companies, are required to cover 51 per cent of the total capacity covered in the survey. Based on the estimated total of twenty-three and a half millions of kilowatts as the total generating capacity of the country in 1925,[1] the combined holdings of the 15 largest interests reporting to the commission are necessary to cover 51 per cent of the country's total installed capacity.

TABLE 34.—CONTROL OF ELECTRIC PUBLIC-UTILITY GENERATING CAPACITY REPORTED TO THE FEDERAL TRADE COMMISSION, 1925

Company	Installed capacity	Per Cent of total reported
HOLDING COMPANIES	*Kilowatts*	
1. Electric Bond & Share Co. and affiliated companies	2,331,141	11.7
2. Insull Interests	1,729,021	8.6
3. North American Co.	1,276,238	6.4
4. H. M. Byllesby interests	1,059,873	5.3
5. United Gas Improvement Co.	588,209	3.0
6. Hodenpyl-Hardy interests	543,069	2.7
7. Pacific Gas & Electric Co.	540,975	2.7
8. H. L. Doherty interests	488,830	2.4
9. Stone & Webster interests	430,664	2.2
10. Public Service Corporation of New Jersey	409,800	2.1
11. American Water Works & Electric Co.	385,760	1.9
12. United Light & Power Co.	347,155	1.7
13. North American Light & Power Co.	279,624	1.4
14. W. S. Barstow interests	274,751	1.4
15. Duke Power Co.	262,620	1.3
16. Montana Power Co.	234,850	1.2
17. Columbia Gas & Electric Co.	222,670	1.1
18. J. G. White Co.	207,440	1.0
19. Adirondack Power & Light Corporation	144,750	.7
20. Washington Water & Power Co.	139,750	.7
21. Albert Emanuel, jr.	126,651	.6
22. C. H. Tenney & Co.	104,905	.5
23. Other holding company groups	3,191,783	15.9
Total	15,320,529	76.5

[1] *Electrical World*, Apr. 3, 1926.

TABLE 34 (*Continued*)

Company	Installed capacity	Per Cent of total reported
INDEPENDENT COMPANIES		
1. New York Edison Co. and United Electric Light & Power Co.	802,300	4.0
2. Detroit Edison Co.	511,850	2.5
3. Southern California Edison Co.	498,700	2.5
4. Philadelphia Electric Co.	476,480	2.4
5. Consolidated Gas, Electric Light & Power Co. (Baltimore)	357,512	1.8
6. Brooklyn Edison Co.	339,500	1.7
7. Pennsylvania Water & Power Co.	131,000	.7
8. Potomac Electric Power Co.	118,000	.6
9. Portland Electric Power Co.	115,230	.6
10. Los Angeles Gas & Electric Corporation	108,700	.5
11. Rochester Gas & Electric Corporation	103,560	.5
12. Other independents	547,511	2.7
Total independents	4,110,343	20.5
Municipal	597,624	3.0
Total reporting	20,030,496	100.0

Notwithstanding the fact, shown in Volume I of this report, that there is no single group of affiliated interests controlling more than about one-ninth of the country's total installed capacity, there has been a marked increase in concentration of public-utility generating capacity in the hands of large interests during the past 10 years. In 1915, 85 companies controlled 68.6 per cent of the country's total,[1] whereas in 1925 the holdings of 22 holding-company groups and 11 independents, making 33 interests in all, represent about 67 per cent of the country's total capacity. In 1915 the Department of Agriculture found that the 35 largest corporations controlled about 34 per cent[1] of the country's total, whereas 33 interests now control 67 per cent. In 1915 the 16 largest groups controlled about 22.8 per cent,[1] while in 1925 the 16 largest interests, consisting of 11 holding-company groups and 5 independent operating interests, controlled approximately 53 per cent of the country's total.

[1] *Electric Power Development in the United States,* part i, p. 58.

These estimates would seem to be essentially correct in the light of a statement made by Samuel Insull in an address before the public relations committee of the National Electric Light Association in April, 1925, in which he stated as follows regarding the 17 financially largest holding-company groups:

> ". . . these 17 groups represent 48.4 per cent of the country's total generating capacity, 49.6 per cent of the total electrical output in kilowatt-hours, 51.4 per cent of the gross income, and 56.1 per cent of the population served." [1]

The obvious conclusion is that during the past 10 years the degree of control by large companies set forth by the Department of Agriculture in 1915 has increased considerably. No one group of interests can be said to exercise dominant control over the central station industry as a whole, but the percentage of the total remaining in the hands of independent operating companies and municipals is steadily dwindling as one by one independent operating interests become affiliated with some holding-company group. In the competition of holding companies for desirable independents a few very large holding interests have emerged. Each year sees further consolidations and affiliations by which fewer and fewer large corporations are required to cover half or more of the country's total central station industry.

Interconnection.—The electric power industry has undergone two important stages of development since its inception and is now in the midst of a third. These stages are: First, the period of establishment of isolated plants, each serving its own exclusive territory, and second, the building up of large operating interests by consolidating the territories of previously isolated plants under a single operating management which then proceeds to interconnect the various load centers with transmission lines in order to serve the consolidated territory from a single or at most a few modern power plants. This second stage is still going on apace, but a third has made its appearance in the form of extension of interconnection beyond the bounds of individual operating managements to bind together operating systems that frequently are otherwise independent. These are sometimes called "superpower" systems. This larger territorial connection of independent operating systems for the sale or exchange of energy is a direct outgrowth of the same improvements in the art that have made large individual operating systems possible. Its purpose from an operating viewpoint is to secure greater diversity of load that will employ at all hours of the day as large a proportion as possible of the generating capacity necessary to supply the peak load demands of the interconnected systems, and at the same time to reduce to a minimum the amount of reserve capacity necessary to insure continuous service at all times. Where hydro and steam stations can be interconnected an operating economy sought is to prevent so far as

[1] *How Has It Been Done?* by Samuel Insull.

possible any wastage of water over the dam, and at the same time to guard against shortage of power in the territory of the hydro developments in times of low water. Where only steam systems are interconnected the purpose is to secure to the greatest practicable extent the benefits of diversified load to be served so far as possible from large, highly efficient generating stations, holding smaller, less efficient stations in reserve for peak load or emergency use.

Thus conceived, interconnection has been going on wherever favorable contracts for the purchase and sale or exchange of power could be made without much regard to whether the properties were corporately related or otherwise affiliated. Three great systems, one on the Pacific coast from southern California to Washington and eastward through Idaho and Montana; one in the North Central States from Wisconsin to Kentucky and eastward to Pennsylvania and West Virginia; and one in the South from Alabama to North Carolina have been developed. Another, known as the Boston to Washington superpower zone and westward to Niagara Falls, is contemplated. Recently, by special arrangement a series of companies, from Chicago to Boston were interconnected and operated for a time as a single interconnected group involving six holding-company interests.[1]

In the case of such a long system it is not to be understood that power generated in Chicago was actually delivered in Boston. Instead, the operation is analogous to a long water system with several pumping stations pumping into the system, each station supplying, so far as its capacity will do so, the demand nearest to it, but all combining their efforts to maintain continuous service without fluctuation in pressure throughout the system. If one station breaks down or is otherwise obliged to cease pumping, the remaining stations pick up the load without interruption and supply it until the station in trouble can resume operation.

Holding-company interests have played an important part in the development of interconnection. Having reached the limits of their respective territories by internal connections, it is but one step further to connect with its nearest neighbor of some other holding group. Thus unified ownership or control has not been a necessity to bring about interconnections. It is, however, conceivable that for the fullest and most advantageous technical development closer affiliation and control may be sought. In the recent joint purchase by the Insull and North American interests of a two-thirds interest in the North American Power & Light Co. (Studebaker), one of the objects is stated to be to clear the way for interconnection of the three systems operating in adjacent territories.[2]

How far the movement for interconnection will pave the way for further consolidation of interests it is impossible to foresee, but it is generally believed that the present tendency is toward a much greater concentration of control in the electric power industry.

[1] See *Washington Post,* November 20, 1926.

[2] *Electrical World,* June 26, 1924, p. 1414.

CHAPTER XV

TRANSPORTATION AND COMMUNICATION

THE half-century following the close of the Civil War was the era of American railroad-building. The great trunk lines were flung across the continent and branch lines spread in all directions like the arteries and veins of a human body. In the four decades between 1870 and 1910, railroad construction averaged close to 5,000 miles a year. The whole development, in fact, had been so rapid as to be almost chaotic, and had been characterized by serious abuses. The inefficiency and the corruption in railroad management and the discriminations shown to favored shippers led in the 'seventies to efforts by many of the states to eliminate some of those abuses. Their efforts at railroad regulation were seriously curtailed by Supreme Court decisions which took the control of interstate traffic out of the hands of state legislatures, and thus the issue was forced into the arena of national politics. The result of the agitation for national regulation of railroads was the passing of the Interstate Commerce Act which not only forbade unjust charges and discriminations, but set up an Interstate Commerce Commission to enforce the law. The shortcomings of the railroads and the need for federal regulation are developed at some length in the First Annual Report of the Commission (1). Although the Act of 1887 specifically forbade discriminations between individual localities and classes of freight, the Industrial Commission still found the practice common in 1900 (2). The Interstate Commerce Act of 1887 was but an opening wedge, and the powers of the Commission were gradually increased until the government during the World War actually took over the railroads and operated them. The intention of the government in 1920 to return the roads to private ownership aroused opposition among certain groups, in particular organized labor, which advocated government purchase and operation by a board of directors upon which labor should have a one-third representation ("Plumb Plan"). The sensational charges made by Glenn E. Plumb, counsel for the organized railway employees, gave evidence that thirty years of federal regulation had failed to eliminate "high financing" and other serious

abuses (10). The railroads, nevertheless, were returned, but with increased power to the Commission (11).

While railroad mileage was increasing with great rapidity, transportation by canal was declining (3). Some of this decline was due to natural economic laws (4) and some to the hostility of the railroads, which in many cases obtained control of the canals (5). There has been a similar falling off in the relative importance of river transportation, especially on the Mississippi (6 and 7), some of the causes for which were pointed out in the Final Report of the National Waterways Commission (8). While transportation on rivers and canals has declined, that on the Great Lakes has enormously increased (8 and 9).

The last half of the nineteenth century was a period when steam furnished the chief motive power for transportation. The twentieth century, however, saw the primacy of steam considerably undermined by the coming of electricity and by the gasoline engine. The rapid rise in the 'nineties of the electric street railway and its recent decline in rural districts have been interesting phenomena (12 and 13), as has been the slower substitution of electric power on the steam railroads (14). The chief causes for the decline of the rural "trolley" has been the spectacular development of the automobile and the renaissance of road-building which followed in its wake (15, 16, 17 and 18). Quite as significant has been the development of electricity in communication as exemplified in the growth of the telephone (19 and 20) and the radio (20).

While the United States has seen a marvelous expansion in internal transportation, her merchant marine steadily declined in the years between the Civil War and the opening of the World War (21). This shrinkage was undoubtedly a result of the natural working of economic laws, and might have been prevented by government subsidies. It was not checked until the government during the recent war embarked upon a wholesale policy of ship-building.

The Need for Railroad Regulation, 1887

1.[1] The act to regulate commerce was passed under the authority conferred upon Congress by the Federal Constitution "to regulate commerce with foreign nations, among the several States, and with the Indian tribes," and in recognition of a duty which, though long delayed, had at length, in the opinion of Congress, become imperative. The reasons for the delay are well understood. When the grant of this power of regulation was made by the Constitution the commerce between the States which might be controlled under it was quite

[1] *First Annual Report of the Interstate Commerce Commission,* pp. 2-9. Washington, 1887. Submitted December 1, 1887.

insignificant both in volume and value. It was for the most part carried on by means of coastwise vessels and by water craft of various kinds which were sailed or otherwise propelled on the lakes, rivers, and smaller streams of the interior. On the land there was very little that could be said to rise to the dignity of interstate commerce, and the regulation of that little, as also of that which was exclusively State traffic, was for the most part left to the rules of the common law. The exceptional regulations, if any seemed to be called for, were made by the State laws. In a few cases where persons had associated themselves together as regular carriers of persons on definite routes, exclusive rights were granted to them by the States as such carriers, the motive to such grants being a belief on the part of the State authorities that without the exclusive privilege the regular transportation would not be adequately and reliably provided for.

For the regulation of commerce on the ocean and other navigable waters Congress very promptly passed the necessary laws; but its jurisdiction within the limits of the States was not very clearly understood, and it was not until the great case of Gibbons *v.* Ogden, decided in 1824, that it was authoritatively and finally determined that the waters of a State, when they constituted a highway for foreign and interstate commerce, are, so far as concerns such commerce, as much within the reach of Federal legislation as are the high seas; and consequently that exclusive rights for their navigation cannot be granted by States whose limits embrace them.

But while providing from time to time for the regulation of commerce by water, Congress still abstained from undertaking the regulation of commerce by land. The reasons for this continued to be the same as at the first. The land commerce was insignificant in amount, and the rules of the common law were in general found adequate to the settlement of the questions arising out of it. The commerce of trappers and hunters, of traders with the Indians, or that of the early settlers in the wilderness, needed only the most primitive modes of conveyance; the emigrant wagon in one direction and the pack-horse and canoe in the other, performed in respect to it the functions now performed by the railroad train and the steamboat. The use of such primitive instrumentalities required little regulation by either State or national law. When Congress provided for the construction of the Cumberland road as a great national highway, it was thought quite undesirable to regulate its use by national law or to take national supervision of the commerce upon it; and, with the commerce on the ordinary highways, it was left to the supervision and care of the States respectively through or into which the road should be built.

With the application of steam as a motive power for propelling vessels the conditions were immediately, to a considerable extent, changed. An impetus was given to the internal commerce of the country which promised immense results, and which made immediate and imperative demand for other and very different highways to those which

accommodated the pack-horses and heavy wagons of the early traders and settlers. But even then the circumstances were favorable to a prolongation of State control. The first improved highways were turnpikes; the next in grade were canals; but the highways by water as well as the highways by land were provided for by the States. The General Government made some appropriations for canals where they were needed as improvements in existing navigation, but the great artificial channels of water transportation were State creations. Such was the case with the Erie Canal, which during the period when emigration to the wilderness was greatest, and when improvement in the new Territories was most rapid, constituted the most important of all the highways connecting the interior with the sea-board. Such also were the canals which were constructed to connect the Delaware with the Hudson, the Chesapeake with the Ohio, the waters of Lake Erie with the Ohio at Portsmouth, at Cincinnati, and at Evansville, the waters of Lake Michigan with the Mississippi, and many others now almost forgotten, but which were of great temporary importance and value.

As the States constructed these great interstate highways, it was not unnatural that they should be left in charge of the regulation of trade upon them, especially as no complaint was made that their regulations were unjust, or that they discriminated unfairly as against the citizens or the business of other States. When, in 1830, steam-power began to be applied to the propulsion of vehicles upon land, the same reasons as regards control continued to prevail. The roads constructed for such vehicles were authorized by and built under the authority of the States; the corporate charters under which they were operated, and which prescribed the rights, privileges, and powers of the associated owners were State laws; the States determined for them the measure of their taxation, and limited if it seemed politic their charges and their profits. The States thus touched them so nearly in all their interests and all their functions that Federal intervention seemed not only unnecessary but intrusive unless State power should be abused; and the abuse not often appearing, intervention was scarcely thought of by any one.

For a long time, therefore, the power of the Federal Government in the regulation of commerce between the States was put forth by way of negation rather than affirmatively; that is to say, it was put forth in restraint of excessive State power when it appeared, instead of by way of affirmative national regulation. The national restraint, when there was any, was commonly effected by invoking the action of the judicial department of the Government, and by its assistance arresting such State action as appeared to constitute an unauthorized interference with interstate traffic and intercourse. This special intervention, whether in the exercise of an original jurisdiction, as in the Wheeling Bridge case, reported in 13 Howard, 518, or under an appellate authority, as in Ward *v.* Maryland (12 Wallace, 418), and Welton *v.* Missouri (91 United States Reports, 275), has been impor-

tant and useful in a considerable number of cases, but in the nature of things it could not accomplish the purposes of general regulations. On the other hand, the effect was to leave the corporations, into whose hands the internal commerce of the country had principally fallen, to make the law for themselves in many important particulars—the State power being inadequate to complete regulation, and the national power not being put forth for the purpose.

The common law still remained operative, but there were many reasons why it was inadequate for the purposes of complete regulation. One very obvious reason was that the new method of land transportation was wholly unknown to the common law, and was so different from those under which common-law rules had grown up, that doubts and differences of opinion as to the extent to which those rules could be made applicable were inevitable. A highway of which the ownership is in private citizens or corporations who permit no other vehicles but their own to run upon it bears obviously but faint resemblance to the common highway upon which every man may walk or ride or drive his wagon or his carriage. If we undertake to apply to the one the rules which have grown up in regulation of the others, there must necessarily be a considerable period in which the state of the law will, in many important particulars, be uncertain, and while that continues to be the case, those who have the power to act and who must necessarily act by rule and according to some established system, will for all practical purposes make the law, because the rule and the system will be of their establishment.

Such, to a considerable extent, has been the fact regarding the business of transporting persons and property by rail.

Those who have controlled the railroads have not only made rules for the government of their own corporate affairs, but very largely also they have determined at pleasure what should be the terms of their contract relations with others, and others have acquiesced, though oftentimes unwillingly, because they could not with confidence affirm that the law would not compel it, and a test of the question would be difficult and expensive. The carriers of the country were thus enabled to determine in great measure what rules should govern the transportation of persons and property; rules which intimately concerned the commercial, industrial, and social life of the people.

The circumstances of railroad development tended to make this indirect and abnormal law-making exceedingly unequal and oftentimes oppressive. When railroads began to be built the demand for participation in their benefits went up from every city and hamlet in the land, and the public was impatient of any obstacles to their free construction and of any doubts that might be suggested as to the substantial benefit to flow from any possible line that might be built. Under an imperative popular demand general laws were enacted in many States which enabled projectors of roads to organize at pleasure and select their own lines, and where there were no such laws the grant

of a special charter was almost a matter of course, and the securities against abuse of corporate powers were little more than nominal. For a long time the promoter of a railway was looked upon as a public benefactor, and laws were passed under which municipal bodies were allowed to give public money or loan public credit in aid of his schemes on an assumption that almost any road would prove reasonably remunerative, but that in any event the indirect advantages which the public would reap must more than compensate for the expenditures.

In time it came to be perceived that these sanguine expectations were delusive. A very large proportion of all the public money invested in railroads was wholly sunk and lost. Many roads were undertaken by parties who were without capital, and who relied upon obtaining it by a sale of bonds to a credulous public. The corporation thus without capital was bankrupt from its inception, and the corporators were very likely to be mere adventurers who would employ their chartered powers in such manner as would most conduce to their personal ends.

It is striking proof of the recklessness of corporate management that 108 roads, representing a mileage of 11,066, are now in the hands of receivers, managing them under the direction of courts, whose attention is thus necessarily withdrawn from the ordinary and more appropriate duties of judicial bodies. So serious has been the evil of bringing worthless schemes into existence and making them the basis for an appropriation of public moneys or for the issue of worthless evidences of debt, that a number of the States have so amended their constitutions as to take from the legislature the power either to lend the credit of the State in aid of corporations proposing to construct railroads, or to authorize municipal bodies to render aid, either in money or credit. State legislation has at the same time been in the direction of making compulsory the actual payment of a bona fide capital before a corporation shall be at liberty to test the credulity of the public by an issue of negotiable securities.

When roads were built for which the business was inadequate, the managers were likely to seek support by entering upon competition for business which more legitimately belonged to the other roads, and which could only be obtained by offering rates so low that if long continued they must prove destructive. A competitive warfare was thus opened up in which each party endeavored to underbid the other, with little regard to prudential considerations, and freights were in a great many cases carried at a loss, in the hope that in time the power of the rival to continue the strife would be crippled and the field practically left to a victor who could then make its own terms with customers. When the competition was less extreme than this, there was still a great deal of earnest strife for business, some of which was open and with equal offerings of rates and accommodations to all, but very much of which was carried on secretly, and then the very large dealers practically made their own terms, being not only accommodated

with side tracks and other special conveniences, but also given what were sometimes spoken of as wholesale rates, or perhaps secret rebates, which reduced the cost to them of transportation very greatly below what smaller dealers in the same line of business were compelled to pay. Such allowances were sufficient of themselves in very many cases to render successful competition, as against those who had them, practically impossible.

The system of making special arrangements with shippers was in many parts of the country not confined to large manufacturers and dealers, but was extended from person to person under the pressure of alleged business necessity, or because of personal importunity or favoritism, and even in some cases from a desire to relieve individuals from the consequences of previous unfair concessions to rivals in business. The result was that shipments of importance were commonly made under special bargains entered into for the occasion, or to stand until revoked, of which the shipper and the representative of the road were the only parties having knowledge. These arrangements took the form of special rates, rebates, and drawbacks, underbilling, reduced classification, or whatever might be best adapted to keep the transaction from the public; but the public very well understood that private arrangements were to be had if the proper motives were presented. The memorandum-book carried in the pocket of the general freight agent often contained the only record of the rates made to the different patrons of the road, and it was in his power to place a man or a community under an immense obligation by conceding a special rate on one day, and to nullify the effect of it on the next by doing even better by a competitor.

The system, if it can be called such, involved a great measure of secrecy, and its necessary conditions were such as to prevent effective efforts to break it down, though the willingness to make the effort was not wanting among intelligent shippers. It was of the last importance to the shipper that he be on good terms with those who made the rates he must pay; to contend against them was sometimes regarded as a species of presumption which was best dealt with by increasing existing burdens; and the shipper was cautious about incurring the risk. Nevertheless, it was a common observation, even among those who might hope for special favors, that a system of rates, open to all and fair as between localities, would be far preferable to a system of special contracts into which so large a personal element entered or was commonly supposed to enter. Permanence of rates was also seen to be of very high importance to every man engaging in business enterprises, since without it business contracts were lottery ventures. It was also perceived that the absolute sum of the money charges exacted for transportation, if not clearly beyond the bounds of reason, was of inferior importance in comparison with the obtaining of rates that should be open, equal, relatively just as between places, and as steady as in the nature of things was practicable.

Special favors or rebates to large dealers were not always given because of any profit which was anticipated from the business obtained by allowing them; there were other reasons to influence their allowance. It was early perceived that shares in railroad corporations were an enticing subject for speculation, and that the ease with which the hopes and expectations of buyers and holders could be operated upon pointed out a possible road to speedy wealth for those who should have the management of the roads. For speculative purposes an increase in the volume of business might be as useful as an increase in net returns; for it might easily be made to look to those who knew nothing of its cause like the beginning of great and increasing prosperity to the road. But a temporary increase was sometimes worked up for still other reasons: such as to render plausible some demand for an extension of line, or for some other great expenditure, or to assist in making terms in a consolidation, or to strengthen the demand for a larger share in a pool.

Whatever was the motive, the allowance of the special rate or rebate was essentially unjust and corrupting; it wronged the smaller dealer, oftentimes to an extent that was ruinous, and it was very generally accompanied by an allowance of free personal transportation to the larger dealer, which had the effect to emphasize its evils. There was not the least doubt that had the case been properly brought to a judicial test these transactions would in many cases have been held to be illegal at the common law; but the proof was in general difficult, the remedy doubtful or obscure, and the very resort to a remedy against the party which fixed the rates of transportation at pleasure, as has already been explained, might prove more injurious than the rebate itself. Parties affected by it, therefore, instead of seeking redress in the courts, were more likely to direct their efforts to the securing of similar favors on their own behalf. They acquiesced in the supposition that there must or would be a privileged class in respect to rates, and they endeavored to secure for themselves a place in it.

Personal discrimination in rates was sometimes made under the plausible pretense of encouraging manufacturers or other industries. It was perhaps made a bargain in the establishment of some new business or in its removal from one place to another that its proprietors should have rates more favorable than were given to the public at large; and this, though really a public wrong, because tending to destroy existing industries in proportion as it unfairly built up others, was generally defended by the parties to it on the ground of public benefit.

Local discriminations, though not at first blush so unjust and offensive, have nevertheless been exceedingly mischievous, and if some towns have grown, others have withered away under their influence. In some sections of the country if rates were maintained as they were at the time the interstate commerce law took effect, it would have been practically impossible for a new town, however great its natural

advantages, to acquire the prosperity and the strength which would make it a rival of the towns which were specially favored in rates; for the rates themselves would establish for it indefinitely a condition of subordination and dependence to "trade centers." The tendency of railroad competition has been to press the rates down and still further down at these trade centers, while the depression at intermediate points has been rather upon business than upon rates. In very many cases it has resulted in the charging of more for a short than for a long haul on the same line in the same direction; and though this has been justified by railroad managers as resulting from the necessities of the situation, it is not to be denied that the necessity has in many cases been artificially created and without sufficient reason.

The inevitable result was that this management of the business had a direct and very decided tendency to strengthen unjustly the strong among the customers and to depress the weak. These were very great evils, and the indirect consequences were even greater and more pernicious than the direct, for they tended to fix in the public mind a belief that injustice and inequality in the employment of public agencies were not condemned by the law, and that success in business was to be sought for in favoritism rather than in legitimate competition and enterprise.

The evils of free transportation of persons were not less conspicuous than those which have been mentioned. This, where it extended beyond the persons engaged in railroad service, was commonly favoritism in a most unjust and offensive form. Free transportation was given not only to secure business but to conciliate the favor of localities and of public bodies; and, while it was often demanded by persons who had, or claimed to have, influence which was capable of being made use of to the prejudice of the railroads, it was also accepted by public officers of all grades and of all varieties of service. In these last cases the pass system was particularly obnoxious and baneful; for if any return was to be made or was expected of public officers, it was of something which was not theirs to give, but which belonged to the public or to constituents. A ticket entitling one to free passage by rail was often more effective in enlisting the assistance and support of the holder than its value in money would have been, and in a great many cases it would be received and availed of when the offer of money, made to accomplish the same end, would have been spurned as a bribe. Much suspicion of public men resulted, which was sometimes just, but also sometimes unjust and cruel; and some deterioration of the moral sense of the community, traceable to this cause, was unavoidable while the abuse continued. The parties most frequently and most largely favored were those possessing large means and having large business interests.

The general fact came to be that in proportion to the distance they were carried those able to pay the most paid the least. One without means had seldom any ground on which to demand free transportation,

while with wealth he was likely to have many grounds on which he could make it for the interest of the railroad company to favor him, and he was sometimes favored with free transportation not only for himself and his family but for business agents also, and even sometimes for his customers. The demand for free transportation was often in the nature of blackmail, and was yielded to unwillingly and through fear of damaging consequences from a refusal. But the evils were present as much when it was extorted as when it was freely given.

These were some of the evils that made interference by national legislation imperative. But there were others that were of no small importance. Rates when there was no competition were sometimes so high as to be oppressive, and when competition existed by lines upon which the public confidently relied to protect them against such a wrong, a consolidation was effected and the high rates perpetuated by that means. In some cases the roads, created as conveniences in transportation, were so managed in respect to business passing or destined to pass over other roads that they constituted hindrances instead of helps, to the great annoyance of travel and to the serious loss of those who intrusted their property to them. Then their rates were changed at pleasure and without public notification; their dealings to a large extent were kept from the public eye, the obligation of publicity not being recognized; and the public were therefore without the means of judging whether their charges for railroad service were reasonable and just or the contrary.

But the publications actually made only increased the difficulties. Railroad rates, difficult enough to be understood by the uninitiated when printed plainly in one general tariff with classification annexed, became mysterious enigmas when several different tariffs were printed, as was the case in some sections; some relating to competitive points and others to what were called local points, and each referring to voluminous and perhaps different classifications, which were printed but not posted, and which were observed or disregarded at will in the rates as published. Such unsystematic and misleading publications naturally led to many overcharges and controversies, and naturally invited and favored special rates and injurious preferences.

These were serious evils; and they not only to some extent blunted the sense of right and wrong among the people and tended to fix an impression upon the public mind that unfair advantages in the competition of business were perfectly admissible when not criminal, but they built up or strengthened a class feeling and embittered the relations between those who for every reason of interest ought to be in harmony. It was high time that adequate power should be put forth to bring them to an end. Railroads are a public agency. The authority to construct them with extraordinary privileges in management and operation is an expression of sovereign power, only given from a consideration of great public benefits which might be expected to result therefrom. From every grant of such a privilege resulted a duty of

protection and regulation, that the grant might not be abused and the public defrauded of the anticipated benefits.

The abuses of corporate authority to the injury of the public were not the only reasons operating upon the public mind to bring about the legislation now under consideration; some other things which in their direct effects were wrongs to stockholders only had their influence also, and this by no means a light one. The manner in which corporate stocks were manipulated for the benefit of managers and to the destruction of the interest of the owners was often a great scandal, resulting sometimes in the bankruptcy and practical destruction of roads which, if properly managed, would have been not only profitable but widely useful. This in its direct results might be a wrong to individuals only, but in its indirect influence it was a great pubilc wrong also.

Report of the Industrial Commission on Transportation.—Freight Discrimination (1900)

2.[1] Freight Discriminations Between Individuals

There is a general consensus of opinion among practically all witnesses, including members of the Interstate Commerce Commission, representatives of shippers, and railway officers, that the railways still make discriminations between individuals, and perhaps to as great an extent as ever before. In fact, it is stated by numerous witnesses that discriminations were probably worse during the year 1898 than at any previous time. It is admitted that there is great difficulty in proving individual cases where shippers have been given special rates or other favors, but the witnesses declare that it is common knowledge among all familiar with the subject that such concessions are largely granted. The arguments presented by many railway officers in favor of pooling assert directly or indirectly to the existence of discriminating rates. The representatives of the railways declare that so long as competition exists the attempt to get traffic by secret rates must continue.

It is thought generally that there has been a considerable improvement in the situation during the year 1899. This is attributed in part to the exceedingly heavy traffic which rendered it unnecessary for railroads to secure shipments by discriminating rates, and in part to a better spirit among the railways themselves. In the latter part of 1898, Messrs. Cowen and Murray, receivers of the Baltimore and Ohio Railroad, addressed a letter to the Interstate Commerce Commission declaring that the practice of granting rates below the published tariffs was so general as seriously to reduce the revenues of the railroads. More than 50 per cent of the traffic, at least on certain roads, was affected. The receivers expressed a determination to coöperate

[1] *56th Cong., 1st Sess., House of Representatives, Doc. No. 476. Report of the Industrial Commission on Transportation,* vol. iv of the Commission's Reports, pp. 5-7. Washington, 1900.

in the enforcement of the law. Later, conferences were held between the Interstate Commerce Commission and railway officers, which led to a general attempt to reduce the extent of the evil. Many witnesses, however, including representatives of the railroads, think that the improvement is only temporary and that when the present rush of traffic has ceased discriminating rates will be granted more and more.

A few witnesses are inclined to think that discriminations are not at present a very serious evil and are not likely to become such, especially since the published freight rates are now so low that no considerable concessions can be made from them with profit to the railroads; but the evidence is preponderatingly strong on the other side.

Methods and Forms.—The methods by which discriminations are granted are stated by the witnesses to be very numerous. It is claimed by some that direct rebates and secret rates are still frequently granted; commissions are paid for securing freight; goods are billed at less than the actual weight; traffic within a State not subject to the interstate-commerce act is carried at lower rates; allowances and advantages are made in handling and storing, etc. Several witnesses refer to the practice of shipping goods under a false classification. Sometimes this is done without the knowledge of the railways, but in other cases they apparently connive. Thus, fine hardware may be shipped as some low-class kind of iron. A few specific instances of discriminations of different sorts were mentioned before the Commission, but no detailed evidence was taken to prove the exact character and amount of these discriminations.

Effect of Discriminations.—It is very generally acknowledged that discriminating favors are granted chiefly to large shippers at the expense of small shippers. This is natural, since the railways compete more actively for the traffic which a large shipper can furnish. It is claimed, also, that the effect of the penalties of the interstate-commerce act has been still further to limit the preferences to a few shippers, since this makes it more possible to secure secrecy. There seems, accordingly, to be weight in the suggestion made by several witnesses that railway discriminations tend to foster trusts and combinations; a position which was especially upheld by numerous witnesses in the investigation of the Industrial Commission on trusts. Mr. Blanchard and one or two other witnesses declare that it is in no way the purpose of railways to favor combinations or men of great wealth; in fact, they would prefer not to do so, since it gives these large shippers power to force still greater concessions. But the railways are in no position to refuse the demands of such shippers.

Carload and Part Carload Shipments.—Witnesses on behalf of the railroads justify different rates on goods shipped in full carloads and in part carloads, and there appears no special objection to this practice on the part of other witnesses, so far as the differences are reasonable. It is claimed, however, that on shipments to the Pacific coast the rate on part carloads has been as much as 50 per cent higher than

on carloads, the difference amounting to more than the possible profit of the dealer, and that this arrangement has practically prevented Eastern jobbers from selling directly to retailers in the Pacific States.

Private Cars.—It is the practice of the railways, as was brought out clearly in the evidence, to allow the owners of private cars a mileage rate of from 6 mills to 1 cent per mile for the use of their cars. A very large proportion of the shipments of fruit and of dressed beef is made in such cars. Although the same mileage rates and the same freight rates are perhaps open to all shippers, only those possessed of very large capital are in a position to furnish private cars in sufficient numbers to carry on an important business. It is claimed by nearly all witnesses testifying on the subject, including several railway officers, that the mileage is excessive and represents an exceedingly high profit on the cost of the cars, to that extent giving the owner of private cars an advantage over his competitors. Many of the railways apparently would be glad to supply the needed cars themselves and to refuse to haul private cars, but without an agreement on the part of all the competing lines it is impossible for them to do so. One or two witnesses think that the peculiar character of these cars makes it unwise that the railways should own them, and that the mileage rate is probably not excessive.

Penalties for Discriminations.—Several witnesses, especially railway officers, incline to the opinion that the existing law prohibiting discriminations would be more effective if the penalty of imprisonment were abolished and a high fine, to be assessed primarily upon the corporation rather than upon individuals, made the sole penalty. It is also claimed that railway officers, who are most likely to have definite evidence concerning discriminations, will not testify against one another if the result may be imprisonment, but that they would have no such scruple if the punishment were pecuniary only. It is suggested by some that each carload or shipment carried at a discriminating rate should be made the basis of a separate fine. Mr. Knapp, of the Interstate Commerce Commission, and one or two other witnesses, however, think that the threat of imprisonment is more effective than that of a fine, and especially urge that the mere granting of a right to sue for damages on account of discriminations is of very little effect in enforcing the law. Other witnesses suggest the inspection of books and accounts as a means of obtaining evidence and as a remedy for discriminations.

Abandoned Canals (1908)

3.[1] The extent to which State and private canals have been abandoned is strikingly shown by the Census Reports of 1880 and 1890.

[1] *Preliminary Report of the Inland Waterways Commission, 60th Cong., 1st Sess., Senate Doc. No. 325,* p. 204. 1908.

Editor's Note.—"I transmit herewith," said Roosevelt to Congress on February 26, 1908, "a preliminary report from the Inland Waterways Commission, which was appointed by me last March in response to a widespread interest and demand from

The report of 1880 shows that out of 4,468.60 miles of canals, costing approximately $214,041,802, 1,953.56 miles, representing a cost estimated at $44,013,166, had up to that time been abandoned. By 1889 the mileage so abandoned, as given in the Census report, had increased to 2,215.25 miles, or about half the total mileage originally built, representing a cost estimated at $51,171,016.

Among the causes assigned for this wholesale abandonment of canals are the crisis of 1837, which put a stop to speculative canal building, the inability of some canals to compete with modern railroads and the mismanagement of other canals, together with a popular impression that such systems of public works had done more harm than good, and, finally, a belief that the chief means of internal communication was not to be water but rail.

Since 1889 other important canals and sections of canals, both private and State, have fallen into disuse, including the Delaware and Hudson, in Pennsylvania and New York, important portions of the Pennsylvania system of public works, operated for some years by their purchaser, the Pennsylvania Railroad; the Santa Fé in Florida, and the Socola Canal in Louisiana in 1906. Assuming that the Census figures approximately reflect this tendency toward abandonment the total mileage abandoned brought down to date, as shown in the accompanying table, is 2,444.26 miles, representing a cost approximated at $81,171,374.

Reasons for Comparative Unimportance of Canals (1908)

4.[1] It has been said that in both England and the United States the railroads have probably been unduly blamed for suppressing the competition and the development of waterways. The reasons for this belief as to England have been suggested. As to the United States a different set of reasons probably should be assigned. In the first place the vast area and comparatively sparse population of the United States for a long time seemed to justify the belief that it would be little less than waste of money to develop two transportation systems side by side. The problem, until recent years, was not only to secure transportation facilities enough to move the freight, but also to secure freight enough to make the transportation facilities profitable. As railroads could go into all sections, while inland waterways necessarily were limited in this regard, it was natural that the railroads should have the preference. Moreover, as to the great American rivers—vastly greater and more potentially useful in transportation than the rivers of Europe—their tonnage and commercial utility constantly decreased because the railroads were willing to take the freight and until recent years afforded ample facilities for moving it. To-day,

the people. The basis of this demand lay in the general and admitted inability of the railroads to handle promptly the traffic of the country, and especially the crops of the previous fall." *Preliminary Report,* iii.

[1] *Preliminary Report of the Inland Waterways Commission, 60th Cong., 1st Sess., Senate Doc. No. 325,* p. 381. 1908.

however, the United States faces an entirely different situation. Many of the railroads have been unable to meet the demands upon them, and influential managers of railroads have lately insisted that it was absolutely necessary that waterways be developed to complement the railroad scheme of transportation.

Finally, as a further and most important reason why artificial or semi-artificial means of water transportation have been neglected in the United States, may be stated the simple fact of the existence of the Great Lakes. In these, nature has provided a transportation highway with which neither railroads, rivers, canals, nor canalized rivers, nor any combination of the four, can possibly be compared. The tremendous tonnage moved on the Great Lakes and its marvelous development are regarded by European transportation authorities as among the wonders of the world. Considering the cheapness and unlimited capacity of the Lakes on the one hand, and the celerity and universality of railroad transportation on the other, it is small wonder that the possibilities of rivers and canals were long unappreciated.

Railroad Control of Canals (1908)

5.[1] Delaware and Raritan: The Delaware and Raritan Canal is owned by the United New Jersey Railroad and Canal Company, all the property of which was leased to the Pennsylvania Railroad Company in June, 1871, for 999 years.

The Morris Canal was leased in perpetuity to the Lehigh Valley Railroad Company in 1871 under authority of a special act of the New Jersey Legislature.

The Lehigh Canal is owned by the Lehigh Canal and Navigation Company. The managers of this company assert that the canal is operated independently of all other lines and is not connected with any carrier engaged in interstate business. According to *Moody's Manual* for 1907 (p. 2100) several railroad lines belonging to this company are leased to the Central Railroad of New Jersey; and the latter company is controlled by the Reading Company, which owned $14,504,000 of the $27,431,800 capital stock outstanding on June 30, 1906. It also appears that three of the managers of the Lehigh Coal and Navigation Company (Samuel Dixon, Joseph S. Harris, and H. P. McKean) are also directors in the Reading Company.

The Delaware Division Canal is now controlled by the Lehigh Coal and Navigation Company, which owns practically all the capital stock.

The Schuylkill Navigation, according to the statement of its manager, operates its own works, which are not leased from any railroad company. The principal office of the company, however, is at the Reading Terminal, Philadelphia, Pa., and out of 65,975 shares of preferred stock all but 106 shares are owned by the Reading Company (the holding company for the Reading Railroad system); and

[1] *Preliminary Report of the Inland Waterways Commission, 60th Cong., 1st Sess., Senate Doc. No. 325,* pp. 375-376. 1908.

out of 13,270 shares of common stock the Reading Company owns 12,907 shares.

The Chesapeake and Ohio Canal is now operated by two trustees, one of whom, H. L. Bond, Jr., of Baltimore, Md., is general attorney for the Baltimore and Ohio Railroad. According to *Moody's Manual* for 1907 (p. 296), of the bond issue of 1878, $500,000 was held by the Baltimore and Ohio on June 30, 1906, and the same authority also credits the Baltimore and Ohio with the ownership of $861,000 of the bond issue of 1844.

The Baltimore and Ohio Railroad Company formerly owned $5,353,200 (a majority) of the capital stock ($10,250,000) of the Consolidation Coal Company of Baltimore, Md., which owns most of the boats on this canal and handles the greater bulk of tonnage.

Mr. F. S. Landstreet, a director of the Western Maryland Railroad, acquired the interests in this canal formerly held by the State of Maryland. But these interests were conveyed to the Continental Trust Company of Maryland in August, 1907.

The abandoned Pennsylvania canals are largely controlled by the Pennsylvania Railroad, which holds $3,517,150 stock in the Pennsylvania Canal Company, and $384,000 mortgage bonds, and in 1906 had $2,006,490 of mortgage coupons.

The Central Railroad of Georgia owns $160,000 stock in the Savannah and Ogeechee Canal Company, also an abandoned canal.

Historical View of the Decline of Traffic on the Mississippi (1908)

6.[1] Steamboat transportation on the lower Mississippi from the fifties until the early eighties was the chief agency upon which the people of the Mississippi Valley depended for the carriage of freight and passengers. Through boat lines running from Cincinnati, Louisville, and St. Louis to New Orleans brought down the products of the upper rivers, returning with sugar, molasses, and other products from the lower river. The river was also the main artery of passenger traffic, and receipts from that source and from the carriage of the mail were great. One boat sold its bar privilege for the lifetime of the boat for $27,000, a sum that built the hull of the steamer. The river traffic was interrupted by the war, but sprang up after its close. Besides the through lines to the northern cities, there was equally important trade from Memphis, Greenville, and Vicksburg to New Orleans, the carriage of cotton being of especial importance, as it was also to steamboats running up the Red, Arkansas, White, Ouachita, Yazoo, and other streams.

From the later sixties until the early eighties the river business enjoyed its greatest importance, and finely equipped steamboats were in the service.

[1] *Preliminary Report of the Inland Waterways Commission, 60 Cong., 1st Sess., Senate Doc. No. 325,* pp. 133-136. 1908.

One of the earlier lines was the Merchants Line, running from St. Louis to New Orleans. The fleet was not organized into a company, but represented a group of separately owned steamboats. The boats ceased operations many years ago.

Probably the most famous line that operated on the lower Mississippi was the Anchor Line, whose boats ran south from St. Louis. At its organization the boats of this line acquired the trade to Memphis, and finally extended operations to Vicksburg and subsequently to New Orleans. The building of railroads along the river diverted the passenger traffic and was a serious blow to the freight business. The owners of the Anchor Line were unable to cope with the railroads and let their boats run down. In 1895 the company sold out to a New York company, which had the backing of Austin Corbin & Co.

All the Anchor Line boats have now disappeared, except the *City of Providence*, which still runs at St. Louis as an excursion boat. At one time the line owned as many as 19 fine steamboats, operating from St. Louis to Memphis, Vicksburg, and New Orleans.

Much cotton formerly went to Vicksburg out of the Yazoo Valley. The Parisot Line of steamboats ran seven or eight boats in this trade, having three or four boats leaving each week. This line operated only to Vicksburg from up the Tallahatchie, Sunflower, and Yazoo rivers. Two or three of its boats were built for the through trade to New Orleans, but this service did not last long, the line finding it more profitable to ship to Vicksburg and there reload the cotton on boats to New Orleans. Some of the Parisot boats carried as many as 4,000 bales of "big" cotton, while most of them had a capacity of 1,000 to 2,000 bales in seasons of good water. When the water was low the steamers towed barges for lightering their loads over shoal places. This line was known as the "P" Line.

The competition of the Yazoo and Mississippi Valley Railroad put the Parisot Line out of business. The boat rate of $1 per bale from points on the Yazoo River to New Orleans was adopted by the railroad at points where river and rail met in competition. At points back from the river the rail rate was more. Even at the same freight rate from competitive points the railroad had the advantage in the matter of insurance. The Parisot Line was sold to the Yazoo and Tallahatchie Transportation Company about 1888. The latter company ran about ten years, finally succumbing to rail competition.

The Mulholland Line ran between Vicksburg and Greenville, operating one or two boats. The property of the line was owned by Capt. J. J. Powers, of Vicksburg, who, with Capt. A. F. Nimtz, formed a new company for the same service, calling it the Vicksburg and Greenville Packet Company, which is still in existence. Up to about a year or so ago this company encountered severe competition from the Arkansas River Packet Company, which put in a boat leaving on the same days as the *Belle of the Bends*, the boat of the Vicksburg and Greenville Packet Company. Finally an agreement was reached by

which the Vicksburg and Greenville Packet Company still survives, but its steamboat the *Belle of the Bends* is operated by the Arkansas River Packet Company. The incorporators and stockholders of the two companies are distinct, but Captain Nimtz has become the representative of the Arkansas River Packet Company at Vicksburg.

Another important company engaged in carrying cotton seed from the Bends above Vicksburg to New Orleans was the Interstate Transportation Company, owning five or six towboats and some thirty or forty barges. This company was in its prime in the eighties, but went out of existence twelve or fifteen years ago.

One of the most famous lines that operated on the Mississippi in former days was composed of boats running to New Orleans from Vicksburg and Greenville, two a week from Vicksburg and one from Greenville. These were the *Robert E. Lee*, *J. M. White*, *Natchez*, *Frank Pargoud*, and the *Katie*. They were separately owned, but were generally run in harmony by agreement, leaving on different days. They were never organized as one company, nor were they under common ownership, but for a certain period the earnings were divided, one pool lasting for five years. These boats were known as the Vicksburg and New Orleans packets and the Greenville and New Orleans packets. They disappeared gradually, the end coming about fifteen years ago, as a result of the sharp railroad competition.

There were a first and a second *Robert E. Lee* on the river, and also a first and second *Natchez*. The first *Lee* was built in 1866 and the first *Natchez* in 1869. It was between these two boats that the famous race from New Orleans to St. Louis took place in 1870. The boats left New Orleans June 30, the *Lee* arriving at St. Louis at 11.30 a.m. July 4, the *Natchez* arriving later.

Boats on the Mississippi have not changed in type from those of the early days. The substitution of steel for wooden hulls has been about the only change, and the use of steel hulls is not general. Only one boat now running to Vicksburg is so built. This boat is the *S. S. Brown* of the Arkansas River Packet Company. She is a new boat. Another steel-built boat, the *Ferd Herold*, now owned by the Lee Line, at Memphis, and operated by it between Memphis and St. Louis, made a few irregular trips to Vicksburg some ten years ago.

The opening in 1883 of the Louisville, New Orleans, and Texas Railroad, now known as the Yazoo and Mississippi Valley Railroad, and Illinois Central property, went far toward accomplishing the downfall of steamboat traffic on the lower Mississippi. The railroad paralleled the river from Memphis to New Orleans, reaching all the important towns on the east bank of the river. Prior to the opening of the railroad cotton from this territory had been sent to New Orleans by river at $1 to $1.50 per bale, but on the completion of the railroad the rail rate soon reached a point where it was unprofitable for the boats to handle cotton. From river competitive points such as Vicksburg the rail rate dropped as low as 45 or 50 cents per bale

to New Orleans, while from points back from the river such as Rolling Fork, Miss., about 40 miles from Vicksburg and 10 from the river, the railroad recouped itself by charging $1 to $2 per bale.

The matter of insurance also operated against the river route. The railroad rates, as given above, included the common carrier's liability of risk, but on all cotton shipped by boat the shipper was put to an additional expense of from one-half of 1 per cent to 1 per cent of the value of the shipment. The premium on shipments from Vicksburg to New Orleans amounted to 25 cents on a bale of cotton valued at $50.

In the early eighties and before, there were lines of cotton boats running to New Orleans from Memphis, Greenville, and Vicksburg, built especially to carry cotton. One of them, the *Henry Frank*, carried the record cargo of 9,226 bales, of which three-fourths were big or uncompressed bales. This cargo was carried to New Orleans in 1881.

With the spread of cotton compresses throughout the South the conditions under which cotton is transported altogether changed. Formerly the only compresses were located at important centers, such as Memphis, Vicksburg, and New Orleans. Nowadays any town of comparatively slight importance has its own compress. Practically all these compresses have excellent facilities for receiving and shipping the bales by rail. The railroad track is at the door of the compress, and on cotton that has been brought to the compresses by the railroad a "refund" is allowed if the cotton is sent from the compress by rail. This has overturned the old system of handling cotton by river. The planter still sends his cotton to the commission merchant or factor to sell and the latter sells it to the cotton buyer who has the cotton compress. The buyer now ships the cotton directly from the compress on the through bill of lading to the New England mills, to Liverpool, Havre, or elsewhere. Export cotton is generally routed via New Orleans, and that for New England may go by one of several routes, a good part of the latter being handled by the Illinois Central via Louisville or Cincinnati. Much of this formerly went by river to Cairo or to Cincinnati, whence it was forwarded by rail to New England.

Inland Water Transportation, 1912

7.[1] It may be said without contradiction that the United States has derived less benefit from the expenditures of these large sums for

[1] *Final Report of National Waterways Commission, 62nd Cong., 2nd Sess., Senate Doc. No. 469,* p. 511. Washington, 1912.

Editor's Note.—So much interest was aroused by the report of Roosevelt's unofficial Inland Waterways Commission that a National Waterways Commission comprising twelve members of the Senate and House of Representatives and headed by Senator T. E. Burton was created by Act of Congress of March 3, 1909. Valuable reports were submitted and the problem of the better utilization of inland waterways was widely discussed.

waterway improvements than any of the European countries have from theirs. This is due partly to the lack of a comprehensive policy and partly to the fact that the improvements of rivers are not fundamental to the growth of traffic. Economic factors are more important. The Government has expended $121,142,554 upon the Mississippi River, and since 1885 the traffic has been steadily declining. During the last few years the Mississippi has had a depth of 30 feet from New Orleans to Memphis, 9 feet from Memphis to Cairo, 8 feet from Cairo to St. Louis, and 4½ feet from St. Louis to St. Paul; but the present traffic is not more than a third of what it was in 1880, when the channel depth for these different sections of the river was much less. A good index of the decline of traffic on the upper Mississippi River is shown by the statistics of shipments from St. Louis. In 1880 shipments by steam boats and barges amounted to 1,038,350 tons. At this time the depth of the river was only 3½ to 4 feet. In 1900 the shipments had declined to 601,862 tons. In 1903 they had fallen to 212,207 tons; and in 1904 to 82,565 tons. In 1910 they had decreased to 48,425 tons, while the depth of the river had increased to 8 feet for most of the year.

During the period 1880 to 1910 the total receipts and shipments at St. Louis decreased almost 90 per cent, as shown by the following table:

Year	Shipments	Receipts	Total
1880	1,038,350	1,092,175	2,130,525
1890	601,862	663,730	1,265,592
1895	303,355	508,830	812,185
1900	245,580	512,010	757,590
1905	80,575	289,850	370,425
1910	48,425	143,540	191,965

Decline of Inland Water Transportation

8.[1] The commission has had under consideration the manifest decrease in water-borne traffic on a majority of the rivers and inland waterways of the country. On many there has been an absolute decrease, while on others the falling off has been merely relative. In these latter cases, although the aggregate traffic by rail and water has been greatly multiplied, the proportional share carried by water has very noticeably diminished. Perhaps the most striking illustration of this is the traffic of the Erie Canal. In 1880 this canal carried between Buffalo and New York 4,608,651 tons, or 18 per cent of the total traffic, while in 1906 (the latest year for which statistics are available) the canal carried only 2,385,491 tons, or 3 per cent of the total traffic, as against 78,703,315 tons transported by the New York Central and Erie Railways. Not only has the actual traffic on

[1] *Final Report of National Waterways Commission, 62 Cong., 2nd Sess., Senate Doc. No. 469,* pp. 66-72. Washington, 1912.

the canal decreased nearly 50 per cent since 1880, but the relative amount carried by the canal, as compared with the two railroads, has fallen off from 18 per cent to 3 per cent. Likewise, on as important a river as the Hudson, the local commerce, exclusive of what comes through the Erie Canal, has shown some decline, while as shown by the reports of the Army engineers, the commerce for the section of river between Coxsackie and the State dam at Troy, including the Erie Canal traffic, has declined from 4,045,895 tons in 1898 to 2,945,921 tons in 1908. On a number of southern rivers, also, such as the Altamaha, Tombigbee, and Pearl, there has been a marked decline in river traffic.

Quite as striking is the decrease in traffic on the Mississippi River and most of its tributaries. The following figures emphasize this fact:

FREIGHT SHIPMENTS, MISSISSIPPI RIVER SYSTEM, FOR 1889 AND 1906

[Compiled from Census Report, *Transportation by Water, 1906*, p. 181.]

	1906					1889—Total tons	Change since 1889	
	Self-propellers		Barges and tows		Total tons		Gain	Loss
	Tons	Per cent	Tons	Per cent			P. Ct.	P. Ct.
Upper Mississippi	153,932	25.8	441,953	74.2	[1] 595,885	[1]13,947,364	.....	85
Illinois River	32,764	31.0	73,062	69.0	105,826	180,264	.....	41
Missouri River	84,790	8.2	952,269	91.8	1,037,059	2,132,820	.....	49
Other tributaries above St. Louis	1,876	9.7	17,455	90.3	19,331			
Total upper river system	273,362	15.5	1,484,739	84.5	1,758,101	6,260,448	.....	72
Ohio River system	1,246,437	8.2	13,980,368	91.8	15,226,805	15,796,968	.....	3
Lower Mississippi system	835,587	32.8	1,710,600	67.2	2,546,187	6,232,087	.....	59
Total Mississippi system	2,355,386	12.1	17,175,707	87.9	19,531,093	28,289,503	.....	31

[1] These figures do not include ferry traffic at St. Louis.

Other tables furnished by the Department of Commerce and Labor, classifying these shipments by commodities, show that the main items of decrease have been logs and lumber, ice, grain, coal, iron ore, and general merchandise on the upper Mississippi River system, and grain, lumber, cotton, and general merchandise on the lower Mississippi River system. The decline in the rafting of logs and lumber is responsible for a considerable share of the decrease shown.

On the other hand, the traffic on the Great Lakes has increased

enormously. The total commerce passing through the Sault Ste. Marie Canals, where very accurate statistics are collected, amounted to 3,256,628 tons for the season of 1885, 21,234,664 tons for 1898, while for 1908 it had increased to 41,390,557 tons, and for 1909 to 57,895,149 tons. Increased channel depth and lock facilities have been provided from time to time to meet the increasing traffic. It should be stated, however, that the Great Lakes are in a class by themselves. Likewise on some rivers, such as the Monongahela, the Kanawha, and a number of minor streams, the traffic has shown a considerable increase. On the Ohio River the aggregate tonnage has been well maintained; also on portions of the Tennessee it has shown some increase. A notable feature of the traffic upon some rivers has been the development of transportation for short distances, including ferry traffic.

The most frequent argument for river transportation has been that for coarser freights over long distances water transportation afforded very great advantages. There can be little question of the general accuracy of this statement. A boat or barge floating in the water is readily moved and at low speeds requires far less power than the movement of a railway car or other receptacle for freight used on land. The general statement has been made and widely accepted that with an equal expenditure of power about five times as much freight can be handled by water as by rail. The expense of equipping a transportation line, at least so far as the boats are concerned, is but trivial in comparison with that of constructing a railway. River transportation again has a decided advantage in that the waters are free, and anyone having the requisite capital and ability can engage in the business. This tends to create competition and to prevent monopoly. Indeed, it may be asserted, as a general proposition, that in any highly advanced country it is extremely desirable that an abundance of transportation facilities be furnished and that means be afforded for the carriage of freight not only by rail, but by water as well. It is a matter of common occurrence that in years of great crops or unusual prosperity the railways of the country have been unable to provide for the prompt and efficient performance of their duties as common carriers. The existence of this condition affords an independent argument for the development of transportation routes by water, even in localities where shippers mainly depend upon railways.

It has been the aim of the commission to find the explanation of the marked tendencies which have become manifest in the diminished use of most of the inland waterways of the country, and, if possible, to point out certain remedies.

It is the opinion of the commission that the most important factor in the decrease of water-borne traffic alongside of and contemporaneously with the great increase in railway traffic is due to the relations existing between these two great agencies for transportation.

The many advantages which a railway has in competition with a water route may be grouped into two general classes.

1. Those inherent or fundamental advantages which are based upon permanent conditions.

The first and most important of these is the wider area of distribution available to railways. A railroad line can be constructed in any direction to any part of the country except the portions which are admittedly inaccessible, while the line of a river is fixed by nature in a single direction. Railroads are more readily adaptable to the newly arising and ever-shifting demands of producing areas and of markets. In providing for the receipt and delivery of freight at factories or warehouses, branch lines or switches can be constructed. Railroads can reach all cities and towns alike, whether located upon the water or not, while obviously boats or barges can not be used except for the receipt and delivery of freight or passengers from or to localities upon waterways. The rapid growth of inland cities not located upon waterways, many of which have attained very considerable size, emphasizes the possibility of development where the dependence for transportation facilities must be upon railroads alone. Notable illustrations of such prominent centers are Birmingham, Ala.; Atlanta, Ga.; Columbus, Ohio; Indianapolis, Ind.; Denver, Colo.; and a great number of cities and towns which are not provided with facilities for water-borne traffic.

A second advantage of the railways, which can be counted as belonging to this class, lies in the increasing importance of terminals and the necessity for facilities for the prompt and economical loading and unloading of freight. The cost of hauling freight, as compared with the handling or delivery at terminal points, has experienced a great change in the last 40 years. The cost of hauling has very materially decreased, while the cost of handling and the expenses connected with terminal facilities, though diminished in many ways, have not decreased accordingly.

A third advantage in this class is intimately associated with the preceding, and arises from the readier transfer of traffic from one railway to another, as compared with transfer from water to land or land to water. This includes not only physical transfer of traffic, but the through haul of cars without break of bulk and a thorough organization for through billing over various roads, with facilities for easy settlement of joint accounts of the coöperating railways. In this connection may be mentioned a physical disadvantage of rivers, due to the very considerable oscillation in their levels. This fact makes it more difficult to provide convenient and adequate loading machinery and renders the receipt and shipment of freight proportionately more expensive. The variation in the Ohio River at Cincinnati is over 60 feet; that of the Mississippi at Grafton, Ill., below the mouth of the Illinois River, is 29.6 feet; at St. Louis, 43.92 feet; below Cairo and the mouth of the Ohio River, 45.6 feet; between Memphis and Helena,

Ark., 54.75 feet; at Vicksburg, Miss., 58.98 feet; and at New Orleans, La., 21.02 feet.

Another consideration is that railways, as a rule, make a higher speed per hour and the distance to be traversed between terminals is usually shorter by rail. Furthermore, the railway is more reliable in its schedules. It should, however, be stated that on certain water routes in this country, especially in seasons of traffic congestion, freight is quite as promptly delivered, and in many instances more promptly, than on railways.

2. Those advantages pertaining to railways which may be deemed artificial or temporary. These are due to conditions not necessarily permanent in their nature.

The first and most important of these is the right of the railway to charge lower rates between points where their line is in competition with water routes.

Section 4 of the act to regulate interstate commerce contains the following provision:

> "That it shall be unlawful for any common carrier subject to the provisions of this act to charge or receive any greater compensation in the aggregate for the transportation of passengers or of like kind of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, in the same direction, the shorter being included within the longer distance."

The words "under substantially similar circumstances and conditions" found in this section have been interpreted to mean that the existence of actual water competition constitutes a circumstance sufficiently dissimilar to relieve the carrier from the operation of the law. Under this interpretation the cutting of rates, where water competition exists, has been carried to an almost unlimited extent. It is now a question whether the right to lower competitive rates has not been exercised to an extent much in excess of what was intended when the act was passed, and, it may be added, to a degree quite inconsistent with the most salutary policy for the commercial and industrial interests of the country.

A second of these artificial or temporary advantages of the railroads comes from the power to acquire steamboat lines or enter into agreements with them for the purpose of stifling water-borne traffic, either by operating the steamboat lines or by discontinuing their use upon competitive routes. In both methods, namely, in the acquisition and operation of steamboat lines in such a manner as not to compete with railways, and in removing them entirely from the field of competition, the railway companies of the country have been very active.

A third advantage arises from the refusal to pro rate on through routes where naturally freight would be carried part of the way by rail and part by water. In many cases the route, which apparently is the natural one, would be by water for three-fourths or more of the

distance, yet the charge for the remaining railway haul is so considerable as to render carriage for the longer haul by water unprofitable.

A fourth advantage of the railways, in this class, is the far greater attention given to provisions for warehouses, terminals, and the equipment for handling freight. On many of the waterways very little if any progress has been made during the last 50 years in furnishing modern facilities for the storage or handling of traffic. In each of a considerable number of cities located upon rivers and canals in Germany the members of the commission during the recent inspection trip saw a larger investment for terminals and for the storage of freight and handling of boats than exists on the whole of the Mississippi River above New Orleans.

It is to be noted that in localities where water-borne traffic has increased, as on the Great Lakes, careful and elaborate provision has been made for the handling of freight in the most economical manner. It is not, in the opinion of the commission, difficult to explain the remarkable increase in this locality. Upon the Great Lakes there is a demand for the shipment of freight unsurpassed anywhere. The great iron-ore mines of the upper lakes and the very large quantities of grain awaiting shipment toward the more populous regions of the Atlantic seaboard and for export to Europe, as well as the quantities of lumber, which, though greatly diminished, are nevertheless considerable, afford cargoes for the downward trip, while the great demand for coal in the territory tributary to the upper lakes and the great supplies near to Lake Erie afford a return cargo which, though relatively much less in volume, is still very large. The equipment for the loading and unloading of freight at terminal points is more advanced than anywhere else in the world. The boats are constructed with a view to utilizing space, so that a given tonnage will carry the greatest possible load, and those carrying the larger part of the traffic are specially constructed with a view to rapid loading and unloading of their cargoes. On the Great Lakes there are, moreover, channels of 20 feet on through routes, with an equal depth in the large harbors. Notwithstanding the immense traffic on these Lakes, it is, however, a noticeable fact that the quantity of general merchandise or package freight has not kept pace with the far more rapidly increasing traffic in the staple articles—iron ore, coal, grain, and lumber. It is estimated that not more than 5 per cent of the total traffic on the Lakes is made up of materials other than those mentioned. The traffic in these staples passing through the Sault Ste. Marie Canal in 1907 included 97½ per cent of the total.

On the Monongahela River, which, next to the Great Lakes, affords the most striking illustration of the growth of inland water-borne traffic, coal mines are located at or very near to the river, and these supply a part of the almost unlimited quantity demanded for fuel in the mills and furnaces in or near to Pittsburgh. This coal is readily loaded from the mines into boats or barges and from them directly

discharged to the mills or furnaces where required. About one-third of the coal moves beyond Pittsburgh to points on the Ohio and Mississippi Rivers.

On a number of minor streams, such as the tributaries of the Delaware, traffic has been well maintained by established boat lines which have been in existence for a very long time. One great advantage possessed by these streams is the possibility of delivering freight to towns not provided with railway transportation. Also, in some instances, there is a very considerable saving in distance.

In still another class, traffic, though not so well maintained, continues to be large, as on the Penobscot and Kennebec Rivers, to points upon which freight and passengers are carried by boats running from Portland or Boston; also on the Connecticut River, where the city of Hartford has a daily line to New York City. Such water routes involve a combination of river and coastwise traffic and are frequently able to provide for the delivery of freight more promptly than by rail.

It has repeatedly been urged that rivers should be improved because of the tendency of such improvements to lower railroad rates. This tendency can not be denied. It is very manifest in every portion of the country where rivers have been improved; and so considerable has been the effect that it has frequently been argued that even if a river channel should not be used at all it would be profitable to expend money upon it solely for the effect upon rail rates. The commission, while fully recognizing this fact, can not indorse this as a desirable policy to adopt. It rests, in the first instance, upon the transparent fallacy that the railways constitute an intrenched and uncontrollable monopoly which can not be reached by legislation or other orderly and legal methods; that the only way in which to compel them to lower rates is by the expenditure of large sums of money in the improvement of channels, which are to remain wholly or partially unused. National or State legislation is certainly sufficient, and should be resorted to for securing proper reductions in railroad freight rates. Again, the subject of transportation should be considered as a great economic problem. The cost of facilities for carrying freight whether borne by the Federal Government or by private capital, is a burden upon the resources of the country. While the tendency of waterway improvements to lower freight rates is an important element to be considered, the fundamental criterion should be whether a railway or waterway, when constructed or improved, will be a profitable investment of capital.

As regards remedies to overcome the second general class of advantages of railways over waterways, those designated as artificial or temporary, the commission has considered a great variety of propositions. It has been brought to our attention that in a number of instances railways have temporarily reduced rates and continued them upon a lower basis until competing water lines have been driven out of business. The commission would recommend that in such cases,

when a rate is once reduced by a railway, it should not be permitted to raise the same unless, after hearing by the Interstate Commerce Commission, or other competent body, it should be found that such proposed increase rests upon changed conditions other than the elimination or decrease of water competition.

The most essential requirement for the rehabilitation of water traffic is, in the opinion of the commission, the establishment of harmonious relations between railway and water lines. It is quite as important that there should be coöperation between them as that greater depth of channels should be secured. A study of the water routes which are found to be profitable in the United States discloses the fact that in practically every case the boats upon them are operated in connection and in harmony with railway lines, and, on the other hand, many railways utilize boat lines either actually owned by, or operated in harmony with, them to their very great benefit. It thus appears that to an extent this coöperation already exists, and the transportation facilities of the country will, as we believe, be still further promoted by compelling joint rates and pro-rating agreements; also by requiring through bills of lading and physical connection between rail and water agencies. It is a waste of capital to construct separate systems of warehouses and terminals for railroads and waterways when they can be used jointly by both methods of transportation. Legislation, in order to be effective, must require terminal and wharfage charges to be reasonable whether these facilities are owned by railways or waterways.

Transportation on the Great Lakes

9.[1] In this country we have a very striking contrast presented—the remarkable growth of water transportation on the Great Lakes and the decadent condition of commerce on many of the rivers and canals. The records kept by the engineers in charge of the locks in the two canals which connect Lake Superior with Lake Huron furnish the best index of the growth of commerce on the Great Lakes. In 1885 the traffic amounted to 3,256,628 tons; in 1910 it had increased to 62,363,218 tons, a gain of almost 2,000 per cent. In 1911 the traffic decreased to 53,477,216 tons, owing to dull times and poor crops. This record of growth surpasses that of any of the waterways in Europe and is only possible on large bodies of water of this kind.

The growth of commerce at a number of the Great Lake ports has been very rapid. At the present time the receipts and shipments at the combined harbors of Duluth and Superior exceed those of any other port in the country with the possible exception of the port of New York. In 1900 the total receipts and shipments at Duluth alone amounted to 7,089,441 tons. In 1906 they had risen to 14,424,101. Since then the commercial statistics of Duluth and Superior have been

[1] *Final Report of the National Waterways Commission, 62nd Cong., 2nd Sess., Senate Doc. No. 469,* p. 485. Washington, 1912.

combined. During the season of navigation in 1910 the total receipts and shipments of the two harbors amounted to 36,684,580 short tons, valued at $284,000,000.

Some of the Lake Michigan ports have a large and rapidly increasing traffic. In 1910 the total receipts and shipments at Milwaukee amounted to 7,744,985 tons, an increase of 100 per cent during the last decade. On the other hand, the commerce at Chicago, although large, has shown practically no increase since the year 1899. In 1910 the total receipts and shipments at Chicago and South Chicago amounted to 11,527,621 tons.

At some of the Lake Erie ports the growth of traffic has been especially marked. The total receipts and shipments at Cleveland were 5,201,357 tons in 1895 and 13,386,606 tons in 1910, an increase of 260 per cent. The receipts and shipments by lake, while not so large, nevertheless compare very favorably with those by rail, as shown by the table following:

Years	Receipts		Shipments	
	Lake Tons	Rail Tons	Lake Tons	Rail Tons
1895.....	3,593,044	6,100,143	1,608,313	4,270,152
1900.....	4,769,720	8,867,904	2,548,826	5,839,071
1905.....	6,749,262	11,255,011	3,494,866	8,974,067
1910.....	8,051,121	13,700,312	5,335,485	8,921,630

Ashtabula is at present one of the greatest transfer ports on Lake Erie. In 1895 the receipts and shipments amounted to 3,735,982, in 1900 to 5,248,938, in 1905 to 7,897,093, and in 1910 to 16,257,723 short tons, a gain of 450 per cent in 15 years. Fairport, Conneaut and Erie also have a large traffic, which is increasing rapidly. At Buffalo the total receipts and shipments by Lake and Erie Canal in 1910 amounted to 16,290,423 tons, valued at $431,784,982, as compared with 11,642,862 tons in 1896.

It is very difficult to determine the actual condition of river traffic for the reason that the statistics which have been collected are very incomplete and unsatisfactory. Where a stream has locks and dams, it is possible for the engineers in charge to obtain fairly good statistics of the traffic that passes through, but where there is open river navigation, accurate tonnage statistics are difficult to obtain. Oftentimes they are nothing more than guesses. During the last few years there has been considerable improvement noticeable in the collection of these statistics, and they are much more reliable than formerly. Attempts are now made in the case of many streams to give the valuation of the traffic, and also, where possible, to give the ton-mileage, but, on the whole, we are far behind France, Germany, and Belgium in this particular. One of the worst defects from the standpoint of the student of water transportation is the lack of coördination of tonnage statis-

tics. There is no way of knowing what the actual tonnage for each stream as a whole is where it is of any length, for the reason that statistics of receipts and shipments are not always collected at every landing and as a rule do not include any information regarding the points to which freight is destined or from which it is received. Hence only in a few cases is it possible to remove the duplications that occur. Not having complete statistics for each waterway, it is, of course, impossible to compute by years the total water-borne traffic for all of the streams in the country as is done in Europe.

Such statistics as are obtainable for the rivers in the United States indicate that few streams during the last two decades have shown any great increase in traffic, while many have shown a decided decline. The rivers showing the largest increase are those estuaries or arms of the sea which furnish ship channels or harbors for the important seaports on the Atlantic, Gulf, or Pacific coast.

Remonstrance Against the Return of Railroads to Private Ownership

10.[1] Additional Statement of Mr. Glenn E. Plumb, General Counsel for the Organized Railway Employees of America, Washington, D. C.

Mr. Plumb. Mr. Chairman and gentlemen of the committee, in opening my statement on Thursday morning, last, I said:

During this week and since your honorable committee requested me to appear in order to present the case of organized labor with respect to its bill for public ownership in control of the railroads, there has come into the possession of the railroad brotherhoods and 10 affiliated railway labor organizations of the American Federation of Labor a state of facts never spread before the American people or submitted to the jury of public opinion. These facts tend to show that the wrecking and looting of the New York, New Haven and Hartford Railroad, the Chicago & Alton, the Rock Island System, and the Frisco lines are not sporadic examples of the highway robbery to which the American nation has been subjected as to its public transportation highways. Leading directly from Wall Street and from the banking houses controlled directly by the Morgan and Rockefeller groups, these facts show that there has proceeded a systematized plundering of virtually all of the transportation highways of the United States.

We believe that a congressional investigation will reveal that not

[1] *Return of Railroads to Private Ownership. Hearings before the Committee on Interstate and Foreign Commerce of the House of Representatives, 66th Cong., 1st Sess., House of Representatives, 4378,* vol. i, pp. 821-824.

Editor's Note.—Glenn E. Plumb (1866-1922), specialist in railway law, was the author of the famous "Plumb Plan," strongly advocated by the Organized Railway Employees. See Eliot Jones, *Principles of Railway Transportation,* pp. 491-498. New York, 1927.

one railroad system dominating any part of the 254,000 miles of railroad in the United States but has suffered and is suffering, in degree if not to the same extent, from carefully deliberated manipulations of the sort that have wrecked and ruined the railroads I have mentioned. It will reveal with emphasis the truth of the words recently uttered before the bankers of Missouri by Elihu Root: "Surely some provision must be made to prevent the continuance of the steady progress toward bankruptcy of the railroads which characterized the decade before the Government took possession in 1917." It will reveal that these interests are again gathering their forces of private and secret control and seek, after having gained from Congress a sanction to rehabilitate their railroad properties at public expense, to begin again and follow through its corrupt and wicked cycle the systematized plundering and looting of the public and the public interest in the nation's highways.

In response to that promise I now continue.

I have shown by excerpts from reports by the Interstate Commerce Commission that the property investment account of the railway lines in all of the transportation districts of the United States are wholly unreliable, and can not be used as the basis for determining what the public shall pay for the service.

I have shown that in the five railway valuations first completed and published by the Interstate Commerce Commission the actual cost of reconstruction new, including the increased value of lands and real estate, is but 50 per cent of the aggregate property investment accounts of the five railways so valued.

I charge that the nearly completed survey of the entire transportation area of the United States contained in the reports of the Valuation Division of the Interstate Commerce Commission, so far as that work has now progressed, confirms the results disclosed by the valuation of these five roads. I charge that the aggregate investment account, as stated by the carriers so examined, exceeds the estimated cost of reproduction new by the same or approximately the same percentages shown in the valuation of the five railroads as shown in my testimony.

I charge that in such investigations so made by the Valuation Division of the Interstate Commerce Commission, where the cost of reproduction new approximates in amount the investment account as stated by the carrier, it will be found in most instances that this approximation is due to the fact that vast expenditures have been made out of surplus and excessive earnings, after the payment of ample dividends on the actual investment; that these surplus earnings have been expended on or ploughed into the property in such a way that the actual cash investment, including these surplus earnings, had brought the level of cost of reproduction new up to the property investment account.

I charge that President Underwood, of the Erie Railroad, in an

interview recently given to the New York *World*, stated that the expense of operation under Government control had been greatly increased by the employment for political purposes of unnecessary employees, and that this increase in pay-roll expense had been made for the purpose of building a political machine. I charge that investigation of President Underwood's indictment will disclose that if there has been wastefulness of money in swelling the pay rolls, it has been at the instance of railway managements to make the expense account under Government control appear extravagant and wasteful.

I charge that the time the Government took control of the operation of the railroads they were in such depleted condition as to maintenance and repairs of both roadbed and rolling stock that it has required hundreds of millions of dollars advanced by the Government to place them in effective operating condition. I charge that in the making of such expenditures the railroads operated and controlled by men under the influence of Wall Street directorates have spent vast sums in unusual expenditures for maintenance and supplies, anticipating the return of the railroads to the private owners; that such unusual expenditures have been made for the purpose of placing these properties in perfect operating condition and furnishing them with supplies for a long period of operation ahead, such supplies having been paid for out of Government money at exorbitant prices.

I charge that the Interstate Commerce Commission was six years ago directed by Congress in the provisions of the valuation act to ascertain and report the value of all aids, gifts, and grants made to railway corporations, the value of those grants at the time made, and the value of the portions of the grants still in the possession of the carriers at the time of valuation. This work has not been done.

I charge that the records disclose that an area of land exceeding 190,000,000 acres, or 296,875 square miles, has been given by the United States Government and by the various State governments to our railroads to aid in the construction of our national highways; that this area exceeds in extent the areas of all of the New England States, New York, Delaware, New Jersey, Pennsylvania, Maryland, Ohio, Indiana, and Illinois, and exceeds the area of either England, France, Germany, or Austria Hungary before the war; that of the grants made 113,000,000 acres had been patented and 35,000,000 acres had been forfeited prior to June 30, 1910; and that of the remainder the greater part is still available. I charge that the values of the grants so made have either been appropriated to the private property of the railway promoters or they have been capitalized as a part of the value of these properties upon which the grantees now demand of this Congress the right to exact returns from the public.

. . . . . .

I charge that during the period from 1900 to 1910, the Chicago, Burlington & Quincy, the Chicago, Milwaukee & St. Paul, the Chi-

cago & North Western, the Great Northern, the Illinois Central, and the Southern Pacific Railroads gave away in bonuses to their stockholders more than $250,000,000; that the actual dividend disbursements on this excess capital for the year 1913 alone, amounted to more than $11,000,000.

I charge that during the limited period from 1900 to 1910, eight eastern railroads alone issued new stock for $101,000,000 less than its market value, or gave away this enormous amount in bonuses to stockholders; that the dividends paid on these fictitious stock issues in 1913 alone amounted to over $4,317,000; and I name as the railroads involved in this inflation the Baltimore & Ohio, the Boston & Maine, the Delaware & Hudson Co., the New York Central & Hudson River Railroad, the New York, New Haven & Hartford, and the Pennsylvania Railroad.

I charge that during the same period 18 representative railroads operating in all parts of the United States as a whole, gave away stock bonuses aggregating $450,414,000.

I charge that the control of these railroads, which have so increased their property investment account at the expense of the public and have so profited by land grants, the value of which is to a large extent reflected in their property investment accounts, are now controlled in whole or in part by the Morgan interests, the Rockefeller interests, and the Gould interests; that this control is made manifest by the interlocking directorates of the financial institutions directed by these interests, who through their directorates control the operations of these railways; and I will say that we have available complete charts showing the interlocking directorates and financial interests so represented, which we shall be glad to present to a proper investigating body.

I charge that these three interests, situated in New York and operating through Wall Street, are necessarily aware of this enormous inflation of the property investment accounts of the railways which they control and are seeking now to have returned to their possession; that the attempt of these interests to secure the adoption of any plan whereby the property investment accounts of these railways shall be recognized by law as the basis for ratemaking they are conducting a political conspiracy to procure from this Government a validation of all of the illegal acts heretofore consummated by these railroad corporations, and to make into a binding obligation upon the public the exploitation through which these public highways have passed under direction and control.

On behalf of all of the employees of these systems of transportation and the public, we demand that Congress shall make a due and thorough investigation of the charges herein set forth, so that the American people may know to what extent it is sought to subject them to exploitation under the plans proposed to this committee of Congress, plans which would make lawful the fixing rates based on the now unlawful aggregate property investment accounts of these systems.

I make these charges and this demand with a full sense of their responsibility which they impose upon me as representative of this great body of the Organized Railway Employees of America, and I am prepared during the investigation which we invoke to substantiate each and every one of these charges.

Gentlemen of the committee, the sole end and aim of organized and publicly commissioned business is to furnish the community with its products at constantly reduced relative cost. The vast privileges granted to railroads by the public were accorded to them solely for the purpose of aiding the public in securing transportation at a cost less than could have been obtained had such grants not been made. These grants were made for the benefit of the public. They have been perverted to the profit of private owners. The values of these grants so made have been capitalized against the public. They are now urged upon Congress as the basis for determining what the public must pay for the service it sought to secure through the granting of these privileges.

This demand made upon Congress is the last desperate and suicidal act of a feudalism based on privilege. It is the perversion of these privileges that has created the machinery for piling up the ever-increasing costs of public service. For this perversion the private control of the transportation business exists. The sole purpose of continuing the present system is to assist it in constantly increasing the cost of living. This demand alone confesses the failure of the system to meet the end for which it was created—the service of the public.

To this system of public plunder we utter the word Jericho. It must fall. Against it we raise the voice of our implacable defiance. Under its domination no public servant should ask us to return. We ask instead, as American freemen exercising our constitutional rights and privileges, a democratic share in the control of the business of transportation to be so conducted as to fulfill its purpose under a control to be wielded by the public and by all of the skill and ability at the command not only of the day worker but of the great body of officials of the railways—the same skill and ability upon which America has always relied, but skill and ability directed solely to public service and not to the exploitation of privilege for profit. So directed, the railway industry will achieve its primal purpose; that is, to reduce the cost of living, to make life easier, and to secure to every citizen his full enjoyment of the right to live and to possess that which he creates.

The Chairman. Mr. Plumb, you have made many specific charges without specifications. Is it your idea that should an investigation be granted you would supply such specifications?

Mr. Plumb. If the investigation is granted, we either have the evidence in our possession or we know where it can be obtained, so that the committee or the investigation body can call for that evidence.

Transportation Act of 1920

Period Between 1916 and 1920

11.[1] Beginning about 1915 or 1916, it became apparent to Congress, as it had been for some time to the railroads and to the public, that the railroad transportation system was not meeting the transportation requirements of the country. There began also to be a feeling in Congress that this situation was not due so much to the shortcomings of the railroads as to the shortcomings of legislation. Upon the recommendation of the President a Joint Committee of Congress was appointed to investigate the railroad problem. This committee, composed of five members from each committee of the House and Senate on Interstate Commerce, commonly known as the Newlands Committee, began its hearings in November, 1916, and were continued into the spring of 1917, when the war postponed further hearings. During that time, however, the railroad officials made a very powerful plea for constructive legislation. The signing of the armistice, with the certainty of a return of the railroads to private operation, compelled an intensive study of the question by Congress. During the year 1919 the Interstate Commerce committees of both houses separately held extended hearings and went into the whole question with painstaking care.

Congress was confronted with the immediate problem of enacting legislation vitally necessary to meet the condition arising upon the return of the railroads to private management. It also recognized that the unsolved problem of a permanent regulatory policy must be solved if private operation were to be a success.

The legislation finally enacted is an attempt to meet both of these problems. The House passed the so-called Esch bill, which dealt largely with perfecting the existing machinery of regulation; the Senate passed the Cummins bill, which was a radical departure from existing regulatory legislation. The bill as it came out of conference and was enacted into law was largely a combination of these two bills, with some important modifications.

The act provided that federal control of the railroads should terminate on March 1, 1920, and on that date most of the provisions of the new act went into effect.

Provisions Relating to Termination of Federal Control

The first part of the act deals with the termination of federal control and its provisions are transitory in their nature, although of vast importance to the railroads. Some of these provisions have now ceased to operate, and others are of little importance to the public.

[1] Rich, Edgar J., "The Transportation Act of 1920," *American Economic Review*, vol. x, no. 3, September, 1920, p. 508 ff. Used by permission of the author and editors.

The Labor Problem

The two outstanding problems which confronted Congress in considering legislation were, first, how to deal with the labor problem so as to prevent interruption in transportation, and, secondly, the passage of legislation which would enable the credit of the railroads to be reëstablished. The labor question is always charged with political dynamite. The Senate committee and the Senate itself handled the problem with striking courage. The bill which passed the Senate provided for compulsory arbitration of labor disputes, and made the finding of the arbitration tribunal of binding effect. It further made the combination of employees substantially to interrupt transportation an offense. The House committee approached the problem with a full appreciation of its momentousness, but in the firm belief that the solution was not to be found in any law preventing strikes. It reported a provision carefully worked out, but somewhat complicated, for the compulsory submission of disputes to boards of arbitration, but did not go so far as to declare strikes unlawful. The House, however, rejected the provision and enacted an extremely weak voluntary arbitration provision, which it is commonly reported was prepared by the railroad brotherhoods.

. . . . . .

The Financial Provisions

Adequate service depends largely upon adequate facilities. The facilities cannot be secured without the ability to raise money by the issuance of capital obligations. Bonds and stocks cannot be sold unless the revenue is sufficient to give assurance that interest and dividends will be paid. The rates for transportation must be such as to yield such adequate revenue, and at the same time they must not be more than is necessary to accomplish this result. Public utilities cannot be operated as a source of private profit beyond the amount necessary to establish proper credit.

To Senator Albert B. Cummins of Iowa is due the credit of recognizing the problem and of formulating legislation calculated to solve it. This principle is stated with clearness in that section of the Transportation act which is probably its most fundamental section. Section 422, paragraph (5) is as follows:

"Inasmuch as it is impossible (without regulation and control in the interest of the commerce of the United States considered as a whole) to establish uniform rates upon competitive traffic which will adequately sustain all the carriers which are engaged in such traffic and which are indispensable to the communities to which they render the service of transportation, without enabling some of such carriers to receive a net railway operating income substantially and unreasonably in excess of a fair return upon the value of their railway property

held for and used in the service of transportation, it is hereby declared that any carrier which receives such an income so in excess of a fair return, shall hold such part of the excess, as hereinafter prescribed, as trustee for, and shall pay it to, the United States."

In order to solve the problem arising out of the competitive situation, the act provides a method entirely new to rate regulation, upon the successful operation of which depends the ultimate question of whether the railroads can be successfully operated under private management.

The first step is for the commission to determine the value of the railroad properties. Congress has followed the general trend of economic thought and the practice of public tribunals in utilizing valuation as the basis upon which return must be reckoned. The public is gradually coming to the conclusion that valuation is only of importance in protecting the private rights of the carriers, and offers very little help in determining what revenue is necessary in order to enable the carriers properly to perform their functions.

The next step in the process, after value has been fixed, is to determine whether the railroads of the country shall be treated as a whole, or shall be divided into rate and valuation groups. The commission has the option of treating the country as a whole or of dividing it into any number of such groups. When the groups have been determined and the valuation of the railroads within each group arrived at, the commission, for the two years beginning March 1, 1920, "shall initiate, modify, establish or adjust" rates so that "under honest, efficient and economic management and reasonable expenditures for maintenance of way, structure and equipment," the carriers shall earn a net railway operating income equal to 5½ per cent on the aggregate value. The commission, "may, in its discretion, add thereto a sum not exceeding one half of one per centum of such aggregate value to make provision in whole or in part for improvements, betterments or equipment."

It is to be observed with care that the commission is not to establish rates so that each railroad shall earn 5½ or 6 per cent on its value (for under competitive conditions this would be impossible), but that the rates shall be established so that the carriers as a whole or in such groups as the commission may determine shall earn the designated return. Under such an adjustment railroads, because of greatly varying earning powers, may earn 10 or 15 per cent, or even more.

Six per cent on the value of the railroad property may mean 8 or 9 per cent on its capital stock, depending upon the relative amount of stocks and bonds and the interest which the bonds carry. Such an amount of earnings applicable to interest or dividends may be sufficient to establish the credit of a majority of the railroads within a common territory, under present conditions. Congress very wisely

refrained from exercising its legislative judgment in determining what rate of return would be necessary two years from now.

After March 1, 1922, the commission is given the broadest latitude in determining what is a fair return upon the value of the railroad property. Paragraph (2), in part, is as follows:

"In the exercise of its power to prescribe just and reasonable rates the Commission shall initiate, modify, establish or adjust such rates so that carriers as a whole (or as a whole in each of such rate groups or territories as the Commission may from time to time designate) will, under honest, efficient and economical management and reasonable expenditures for maintenance of way, structures and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation: Provided, That the Commission shall have reasonable latitude to modify or adjust any particular rate which it may find to be unjust or unreasonable, and to prescribe different rates for different sections of the country."

Then follows the provision, which was so bitterly opposed by the strong railroads, that any railroad earning 6 per cent on the value of its property should pay to the government one half of the difference between such 6 per cent and the amount earned. This amount over 6 per cent, commonly called excess profits, goes into two funds—the share of the railroad and the share of the government. The share of the railroad is hedged around with certain restrictions and can be used only for certain purposes. It must go into a reserve fund and can be drawn on only "for the purpose of paying dividends or interest on its stocks, bonds, or other securities, or rent for leased roads," until such reserve fund is "equal to five per centum of the value of its railway property." After the fund reaches this amount it may be drawn upon for any other lawful purposes.

The half of the excess profits which goes to the government is placed in a fund called "the general railroad contingent fund," which becomes a revolving fund administered by the commission. "It shall be used by the Commission in furtherance of the public necessity in railway transportation either by making loans to carriers to meet expenditures for capital account or to refund maturing securities originally issued for capital account, or by purchasing transportation equipment and facilities and leasing the same to carriers."

We have here, therefore, an attempt to solve the ever present problem of the weak and the strong roads. A method is provided for transferring from the strong roads a portion of their excess profits which are utilized for the purpose of providing the weak roads with credit and facilities. Although this provision was attacked by the railroads as unconstitutional during the pendency of the bill in Congress, it is believed that under sound economic and legal principles there is no constitutional objection to it.

Consolidation of Railroads

It was the belief of the Senate Committee on Interstate Commerce that the problem of the weak and the strong roads ultimately should be solved by the consolidation of the various railroad systems into a limited number of large systems. It was proposed in the bill which passed the Senate that the railroads should be consolidated into not less than twenty nor more than thirty-five systems which should be so arranged that competition would be prepared along such lines, and that for the period of seven years consolidations could voluntarily be made according to the plan, but that at the end of seven years consolidation should be compulsory. By establishing competing railroads of substantially the same financial strength it would thus be possible to do away with the necessity of transferring any excess profits of the strong roads for the benefit of the weak roads. It is well known that Senator Cummins held most tenaciously to this consolidation plan, but in conference was obliged to sacrifice it in order to secure an agreement.

The act, however, provides for consolidations, but not for compulsory consolidations, and this feature is important and may in practice prove so satisfactory that the original Senate plan of a few strong competing railroads may be worked out.

Paragraphs (4) and (5) of Section 407 provide that competition shall be preserved as fully as possible and that the systems shall be so arranged that the same rates on traffic will provide substantially the same rate of return upon the value of the respective properties.

The successful operation of the consolidation plan depends, of course, entirely upon the attitude of the stockholders of the corporations. There was a time when the managers of the railroads were somewhat imperialistic in their conceptions, when the strong roads would eagerly have seized this opportunity to consolidate other lines, and even weaker lines, into their systems, but because of the scantiness of earnings of late years there is some serious doubt whether the strong lines will want to dilute their earnings by taking in the weaker lines.

Section 407 also authorizes pooling under authority of the Interstate Commerce Commission, provided such pooling does not unduly restrain competition. It is doubtful if this becomes important unless the railroads are taken over by the President in time of war under his power conferred by the act of August 29, 1916.

Exclusive Federal Control Over the Issuance of Securities

One of the difficulties which in the past has confronted the railroads in raising money is that the approval of every state in which the railroad is incorporated, and even in states in which it is not incorporated but through which it runs, must be secured. The legislatures and the state commissions have often imposed onerous conditions before giving

their approval to the issuance of securities. For example, at the time of the consolidation of the New York Central system the state of Illinois imposed a license fee of $600,000, while the other states through which the system ran imposed only nominal charges. The Arizona commission attempted to impose a condition upon the Southern Pacific, when it asked approval for the issuance of $30,000,000 in securities, that a certain portion of the proceeds should be expended—in the judgment of the railroad unwisely—within the limits of the state. Furthermore, it sometimes happens that the laws of the states through which a railroad runs may be so conflicting as to make it practically impossible to secure the approval of all commissions to the financial plan determined by the railroad.

The new act gives to the Interstate Commerce Commission exclusive jurisdiction over the issuance of securities, and thus greatly simplifies the mechanical processes of securing approval and prevents improper restrictions by state authorities. There is one power given to the commission which may prove embarrassing if the commission should unwisely assume an authority which properly belongs to management, and not to regulation. The commission must determine whether the purpose for which the money is to be expended is "reasonable, necessary, and appropriate" for the proper performance of service to the public. It also gives to the commission absolute authority to prescribe the terms and conditions under which the securities shall be issued.

Decrease in Electric Railways (1890-1922)

12.[1] *Decline in Rate of Increase.*—From Table I it will be seen that the electric-railway industry has been growing at a decreasing rate since 1890. Line and track mileage, value of road and equipment, and number of passenger cars increased at diminishing rates between 1890 and 1917 and decreased during 1917 and 1922. The number of employees and the number of revenue passengers, however, increased at diminishing rates during the entire period covered by the table. (In comparing rates of increase and decrease in number of passenger cars with rates of increase in number of passengers, it should be remembered that the average size of passenger cars has been increasing from year to year.)

The only items which show higher rates of increase for 1917–1922 than for 1912–1917 are operating revenues and operating expenses; and the only item for which the increase between 1912 and 1917 was greater than that between 1907 and 1912 is operating expenses. Moreover, the rate of increase in operating expenses during each of the last two 5-year periods was considerably higher than that in operating revenues. In fact, the ratio of operating expenses to operating revenues was higher for 1922 than for any preceding census year.

[1] *Census of Electrical Industries, 1922, Electric Railways,* pp. 5-6, 8. Washington, 1925. Published by the Bureau of Census, Department of Commerce.

The decrease in the number of companies reporting for 1922 as compared with 1917 was the combined result of three causes, namely: (1) The retirement of certain companies from business and the abandonment of their trackage; (2) the merging of two or more companies into one operating company; (3) the fact that a few companies, although remaining in existence, did not operate any trackage during 1922.

Between 1890 and 1902 the rate of increase in mileage of track was greater than that in traffic; but between 1902 and 1922 the growth in traffic exceeded that in track mileage to such an extent as to bring about an increase of more than one-third in the number of revenue passengers per mile of track.

The decrease of 903.51 miles in trackage between 1917 and 1922 is accounted for in part by an increase of 294.14 miles in idle trackage (from 36.18 miles in 1917 to 330.32 miles in 1922).

The decrease in the building and extension of railroad lines during the last three quinquennial periods covered by the table is brought out more clearly by the following statement:

Period	Average annual increase or decrease (−) in mileage of single track operated
1890–1902	1,204.5
1902–1907	2,360.9
1907–1912	1,336.7
1912–1917	754.1
1917–1922	− 180.7

It will be seen that the period 1902–1907 was characterized by much greater activity in the building and extension of electric-railway lines than is shown for any earlier or later period. In fact, the average annual increase in single-track mileage between 1902 and 1907 was almost double the corresponding average for the period 1890–1902, was more than three-fourths larger than the average for 1907–1912, and was more than three times as large as that for 1912–1917.

The decline in road building and extension between 1907 and 1917, the actual decrease in track mileage between 1917 and 1922, and the reduction of the rate of increase in number of passengers . . . were due, of course, in large measure if not wholly, to the increase in the use of automobiles and to the establishment of motor-bus lines.

TABLE I.—SUMMARY 1890 TO 1922

	1922	1917	1912
Number of companies	[2] 1,200	[2] 1,307	1,260
Operating	858	943	975
Lessor	[2] 342	[2] 364	285
Miles of line operated [4]	31,264.26	32,547.58	30,437.86
Miles of single track operated [4]	43,931.86	44,835.37	41,064.82
Operated by—			
Electricity	43,789.08	44,676.51	40,808.39
Cable	45.90	45.32	56.41
Animal traction	4.02	11.16	57.52
Steam	1.06	41.03	76.34
Gasoline-engine cars	[5] 86.06	55.61	66.16
Gravity	5.74	5.74	.....
Value of road and equipment	$ 5,058,762,454	$ 5,136,441,599	$4,596,563,292
Number of employees [7]	300,523	294,826	282,461
Number of passenger cars	77,301	79,914	76,162
Number of revenue passengers (including pay transfer) [8]	12,666,557,734	11,304,660,462	9,545,554,667
Number of revenue passengers per mile of track (all tracks) [9]	[10] 288,600	[10] 252,323	232,556
Operating revenues	$1,016,719,092	$709,825,092	$567,511,704
Operating expenses	$727,795,168	$452,594,654	$332,896,356
Ratio of operating expenses to operating revenues (per cent)	71.6	63.8	58.7

[1] A minus sign (−)denotes decrease; percentage not computed where base is an average or is less than 100.

[2] Includes certain companies in Pennsylvania which maintained separate organizations, though leased to and controlled through stock ownership by other companies. For 1912 and 1907 these companies were treated as merged and not included in the number reported.

[3] Figures for 1917 not strictly comparable with those for 1912. See footnote 2.

[4] Includes track lying outside the United States (1922 and 1917, 27.06 miles; 1912, 31.91 miles; 1907, 27.52 miles; 1902, 4.20 miles).

Note. Footnotes 5-10 appear below table on p. 649.

The decrease in the value in road and equipment [1] in 1922 as compared with 1917 was due in part to the abandonment of more than 900 miles of trackage (including trackage formerly operated but

[1] The "Value of road and equipment," as shown in Table 1 and elsewhere in this report, represents not only the investment in properties used for railway purposes, but also investments in electric light and power departments in the cases of those companies which carried on both a railway and a light and power business but were unable to make complete separate reports for their railway departments. It also includes investments in office buildings and in other nonrailway business not separable from railway investments, and a large amount of intangible capital, such as capitalized franchise values.

1907	1902	1890	Per cent of increase[1]				
			1917–1922	1912–1917	1907–1912	1902–1907	1890–1902
1,236	987	789	– 8.2	[3]	1.9	25.2	25.1
945	817	769	– 9.0	– 3.3	3.2	15.7	6.2
291	170	20	– 6.0	[3]	– 2.1	71.2	....
25,547.19	16,645.34	5,783.47	– 3.9	6.9	19.1	53.5	187.8
34,381.51	22,576.99	8,123.02	– 2.0	9.2	19.4	52.3	177.9
34,037.64	21,901.53	1,261.97	– 2.0	9.5	19.9	55.4	1,635.5
61.71	240.69	488.31	.....	.....	.....	– 74.4	– 50.7
136.11	259.10	5,661.44	.....	.....	– 57.7	– 47.5	– 95.4
105.06	169.61	711.30	.....	.....	– 27.3	– 38.1	– 76.2
40.99	[6] 6.06	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
$3,637,668,708	$2,167,634,077	$389,357,289	– 1.5	11.7	26.4	67.8	456.7
221,429	140,769	70,764	1.9	4.4	27.6	57.3	98.9
70,016	60,290	32,505	– 3.3	4.9	8.8	16.1	85.5
7,441,114,508	4,774,211,904	2,023,010,202	12.0	18.4	28.3	55.9	136.0
216,522	212,217	249,047	.....	.....	.....	.....	.....
$418,187,858	$247,553,999	$90,617,211	43.2	25.1	35.7	68.9	173.2
$251,309,252	$142,312,597	$62,011,185	60.8	36.0	32.5	76.6	129.5
60.1	57.5	68.4	.....	.....	.....	.....	.....

[5] Includes 1.26 miles operated by tractor.

[6] Compressed air.

[7] Reported for 1922 as of June 30; for 1917, Sept. 29; for 1912, Sept. 16; for 1907, 1902, and 1890, average for year.

[8] Not including motor-bus passengers.

[9] Based on total track mileage operated by roads which carried revenue passengers.

[10] Number based on running track: 1922, 298,681; 1917, 260,868.

allowed to remain idle in 1922);[1] in part to the reorganization of companies which had gone into bankruptcy and the recapitalization of such companies at smaller amounts; and in part to the fact that the investment in the light and power departments of several large companies was included in the figures for 1917 but not in those for 1922, it having become possible, because of changes in operating conditions, to obtain separate data for the later year.

Increase in Operating Revenues.—It is noteworthy that during every intercensal period the rate of increase in operating revenues has been substantially greater than that in number of passengers carried; and

[1] The net decrease of 903.51 in the mileage of single track between 1917 and 1922 is equal to the difference between the total amount of track abandoned (or allowed to remain idle) and the amount of new track constructed.

for the recent five-year period the difference was extreme, the rate for operating revenues being more than three and one-half times as large as that for number of revenue passengers. The growth during the recent period was due in large measure to advances in rates of fare.

Causes for the Decline of Electric Railways

13.[1] VIII. Upon the assumption that street railway credit is gone, our search for a remedy must begin with an analysis of the fundamental and immediate causes for its disappearance. Why, in any industry so favorably situated from the point of view of credit, has credit been lost? The causes for its disappearance must be sought in the financial policies which have been followed by the industry itself, or in the attitude of the public toward it in the process of regulation, or in changed economic conditions.

IX. From the point of view of the financial policies of the industry as they affect credit, the first thing that demands attention is the almost universal practice of initial overcapitalization, particularly in the early years of electrification. The bad ultimate effects of overcapitalization have been accentuated in many cases by the process of converting stock into guaranteed securities, either through the issuance of bonds or through the assumption of rental charges in connection with the consolidation of properties, so that as time has gone on a greater proportion of the return upon the investment has taken the form of fixed charges. This policy has tended to reduce the "margin of safety" upon which private companies have to depend for new capital and to destroy the financial flexibility necessary for the preservation of solvency in a period of distress.

X. Not only by initial overcapitalization and the assumption of excessive fixed charges have the electric railway companies pursued an unsound financial policy, but also by the fact that seldom, except through duress in the case of receiverships and reorganizations, have they written off any of the excess capital originally issued. Their policy, with few exceptions, has been to swell the capital account and to perpetuate in it any items representing intangible values or "capitalized hopes" that have once gotten into it.

XI. The companies have pursued an unsound financial policy in still another respect. Not only have they been overcapitalized at the beginning and have subsequently refused or neglected to write off their excess capitalization, but they have also generally neglected to build up a depreciation reserve equal to the difference between the legitimate investment in the plant when new and its condition when it has worn down to the normally depreciated condition of an old but efficient operating property. Thus, by the process of wear and tear,

[1] Wilcox, Delos F., *Analysis of the Electric Railway Problem*, pp. 645-649. N. Y., 1921.

Editor's Note.—Delos Franklin Wilcox (1873-1928) was a public utility expert and author of numerous books on municipal government.

even the legitimate initial capitalization has become inflated to the extent of the normal accrued depreciation not represented by depreciation reserves.

XII. Still further, the companies, in many cases, have pursued a policy of artificially maintaining credit by paying dividends when ordinary maintenance and essential replacements were neglected or deferred, with the result that the physical property, representing the capitalization, has been further impaired, and is now in a condition where a complete general rehabilitation is necessary if adequate service is to be given.

XIII. In many localities the electric railways have been overbuilt from the point of view of an industry expected to be financially self-sustaining. This overbuilding has resulted from several causes: (1) the construction of competing lines in the same community; (2) the premature extension of lines for the special benefit of tracts of real estate in which the companies, or the men who controlled their policies, were directly interested; (3) the construction of new lines in thin territory as a result of the ambition of unscrupulous or over-optimistic promoters to get rich quickly through the exploitation of the gullibility of the investing public; (4) the use of progressively heavier cars and heavier track construction in the equipment, extension and rebuilding of lines. While these causes of overbuilding have their origin for the most part in policies for which the companies themselves have been responsible, the local authorities have often "made the motion" or "seconded" it as a result of their conception of public needs or personal advantage.

XIV. As a result of overcapitalization and its attendant evils based upon the idea that the street railway was a fruitful field for speculative investment, the street railway industry fell into the control largely of investment bankers, whose profits were dependent upon the volume of securities turned out and a frequent turnover in the companies' financial arrangements. These policies led to absentee ownership of street railway securities and the formation of holding companies for the inflation and exploitation of street railway credit. The sound principle of simple corporate organization, direct financial responsibility, and community ownership of community enterprises was entirely lost sight of, so that the underlying support of local pride and local interest in the successful construction and operation of transportation facilities responsive to local needs was lost. Thus the companies themselves abandoned and alienated the most substantial source of ultimate credit for a public utility.

XV. From the point of view of public relations and the responsibility of the public through its governmental agencies for conditions that have helped to destroy the credit of the street railways, the first thing to be mentioned is the fixed five-cent fare, which, in the earlier days, was generally made a condition of street railway franchises. The fixed fare, which had no particular relation to the necessary cost of

service and certainly provided no flexibility for the adjustment of the fares to the changes in the cost of service, either up or down, was the cornerstone of speculation in the industry at a time when a guaranteed five-cent fare over a long period or in perpetuity was supposed to represent an opportunity for enormous profit. In urban areas the fixed fare was a temptation to speculation and overcapitalization. It aided and abetted the street railway companies in the adoption and pursuit of the unsound financial policies above described.

XVI. As a result of the arbitrary and corrupt methods often pursued by street railway promoters in securing franchises with the five-cent fare provision in them, and on account of the enormous overcapitalization which street railway promoters indulged in, the public was led to believe that the street railways, out of their use of public property as rights of way, were exploiting the public and reaping unreasonable rewards. The public, claiming the rights of partnership, invoked the taxing power as a means of diverting to the public treasury a portion of the earnings of the business, and in communities where new franchises or renewals of old franchises were sought, the granting of these "favors" was made the occasion for loading upon the companies financial burdens and obligations which it was thought would in some measure be compensatory for the value of the privileges granted.

XVII. But the public was not satisfied to use the taxing power alone. It demanded adequate service as well as a share in the profits. As the franchises granted were in most cases irrevocable, and as the street railways could not be subjected to effective competition, the public laid hold of the police power as a weapon for enforcing the obligations of monopoly and compelling the companies to extend and improve their service. Thus the companies found that, though limited to the five-cent fare, they were not free to scamp the service at will in order to swell their profits, but could be compelled to enlarge and improve it indefinitely, at least so long as they were financially able to do so, and largely without regard to the amount of profits left for the investors.

XVIII. The public also, as a result of its observation of the evils of overcapitalization and speculation in public utilities, including the electric railways, created the public service commissions and conferred upon them authority to regulate new issues of securities and prohibited the issuance of securities not representing new cash put into the business for capital purposes. At the same time the commissions were not authorized to reorganize the companies and cut down the capitalization already outstanding. Thus the public required a new and more conservative method of financing with respect to capital additions, without a reconstruction of the existing financial base. The companies, therefore, no longer had the advantages, precarious and unsound though they were, of the old methods of financing, while at the same time they were unable to issue new securities upon a basis

independent of the inflated securities already out. The "margin of safety," within the limits of a reasonable return upon the investment, was in many cases noticeably decreased as a result of this incomplete and imperfect form of public regulation.

XIX. The causes for the decline of street railway credit thus far enumerated have arisen out of the financial policies adopted by the street railways themselves or out of the policies of regulation adopted by the public, and so far as these policies were unsound those responsible for their adoption and continuance must share the responsibility for the present condition of street railway credit. Still another set of causes can be found by an analysis of economic conditions.

XX. For a long time the public tried to secure the benefit of competition in the street railway business, not recognizing that it was a monopoly by nature. But with the appeal to the police power to compel improved service, the public recognized in a more or less formal and legal way the existence of monopoly as a necessary fact. Just as this recognition was becoming general, the development of the automobile brought into the field for the first time an effective and dangerous competitor of the street railways. In other words, when the public got around to recognize the existence of monopoly in local transportation service the development of the automobile partially reëstablished the condition of competition which, in theory, had just been discarded. In many communities it has been fully recognized that the two methods of local transportation cannot survive on a self-sustaining basis as competitors. The inroads made by this new form of transportation upon the actual traffic and revenues of street railways in many communities, and the resulting uncertainty as to the future of the electric railway, reacted seriously upon the credit of the industry.

XXI. In the old days, the profits of street railway operation were dependent in large measure upon low wages, long hours, and unsatisfactory conditions of work for the employes. Gradually, as time went on, the employes, in part as a result of general public favor, became more and more organized, and were in a position to demand higher wages, shorter hours, and more expensive protection and privileges from their employers. This tendency, of course, has been greatly accentuated since the beginning of the war and as one of the results of war conditions. Nevertheless, the tendency existed before the war, and the uncertainty of the labor element in its relation to the management was a factor of increasing importance in disturbing the hopes of those who had gone into the street railway business as speculators, and had capitalized the future. Disappointed hopes in the industry, even when such hopes were at the beginning illegitimate or unwarranted, had a tendency to restrict the credit of the industry and to cool the ardor of new investors to go into it.

XXII. All these forces conspiring together to impair street railway credit would have effectively destroyed it long before the war, if it had not been made so nearly indestructible by the character of the

industry itself and by the enormous development of the demand for urban transportation. It is by no means surprising that the Great War put the finishing touches on the job. The fundamental basis of credit at all times is security for the investment and its present and prospective net earning power. Any sudden great expansion in the cost of service that is not accompanied by a corresponding increase in revenues must adversely affect the present earning power of the investment, and if the prospect is for the permanence or long continuance of these adverse conditions, then they result in reducing the ultimate security and the prospective earning power of the investment. The effect of the war upon general economic conditions has been to increase the cost of materials entering into street railway construction, maintenance and operation probably to an even greater extent than wages have increased. It is now generally expected that, because of world-wide economic changes, the high prices of materials, the high cost of living, and the consequent relatively high wages will continue for a considerable period, at least for a period longer than the companies can hope to survive and perform their functions without the use of credit.

Electricity on Railroads

Solution of the Railroad Problem

14.[1] The railways have failed us and must continue to fail us whenever we are prosperous, because they cannot haul the load of tonnage prosperity imposes. The solution proposed is electrification. The proposal is based on the performance of electrified railroads already in operation. It is based on engineering knowledge.

We have several hundred miles of main-line electrification on the Chicago, Milwaukee and Puget Sound. Use of electricity in mountain-grade work and in making up trains, negotiating sharp curves and operating through tunnels with heavy freight trains has been a wonderful success on the Norfolk and Western. Terminal work, as well as a good deal of main-line operation, has been completely tried out on the New York terminals and on the New York, New Haven and Hartford, as well as in other places. Every problem in American railroading has been met by electrification by the systems now in operation.

If electrified by beginning where the greatest need exists, the process might be carried forward rapidly enough to solve the problem of our next railway crisis, which will be upon us within five years. Electrification will enable the railroads to handle with ease the heaviest traffic we have ever had, on the same tracks and with the same terminals we now possess. It will put off the necessity of double-tracking, reducing grades, and otherwise extending our present facilities,

[1] Quick, Herbert, "The Electrification of American Railways," reprinted from the *Annals* of the American Academy of Political and Social Science, vol. cxviii, no. 207, March, 1925, pp. 85-89. Philadelphia, Pa.

for at least twenty-five years, and greatly reduce that necessity when it comes upon us if it ever does. The cost will be very great, but probably no greater than would be the making over of the roads along the lines demanded by steam traffic, and the results would be certain of success, while the ability of the roads to handle the growing tonnage with the steam locomotive with any conceivable expenditure of money is more than doubtful when we consider the growing problems of huge terminals and the definite limits of the steam locomotive under multiplying burdens.

The railroads have resorted to electrification in the past just as they must resort to general electrification in the future, to solve problems that steam could not and cannot solve. The Norfolk and Western after a receivership ending in 1898, faced a grave problem that it could not solve with steam, in its physical obstacles, in the form of a single-track tunnel and its heavy grades in the West Virginia coal fields, where on a stretch of thirty miles there originated daily more than 2,000 carloads of coal.

The N. and W.'s Experiment

It had the first 100-ton coal cars ever put in service, the best and most powerful Mallet steam locomotives it could get, and a wonderful steel pier at tidewater, on which these huge cars may be run loaded, and dumped by being capsized bodily into bunkers from which a 5,000-ton cargo ship can be loaded in two hours. A physical obstacle existed in the heart of their system. The steam locomotives could not handle the traffic through the tunnel and on the grades. The trouble through the tunnel was ventilation, while on the grades and curves it was lack of power and speed.

The company decided to electrify. They made many mistakes by which, and by the mistakes of others on other systems, the electric locomotive has been perfected to an extent that makes it a safe and dependable engine, though with electricity, unlike steam, further great improvements may be looked for. The electrification solved the problem. Even with electric locomotives in an experimental state the tonnage over the road increased by one-third in the first three months. After that their success was increasingly triumphant. Years ago, so complete was it, the Elkhorn Grade and Tunnel ceased to be obstacles to the success of the Norfolk and Western. The *Railway Electrical Engineer* for January, 1921, says:

> "The outstanding and pertinent facts are that a new type of locomotive was made to perform a service never before performed, and was put into service practically without experiment. Difficulties have been surmounted as they appeared, and at no time have the electric locomotives been unable to handle the business that came over the division. Electric operation has made it possible to handle the ever-increasing traffic that is originated on this division. The far-sighted policy of adopting it has been profit-

able to the Norfolk and Western, and the working out of the problems involved has been a service to all other roads confronted with similar problems."

A Notable Performance

Mr. A. H. Babcock, consulting electrical engineer for the Southern Pacific Railroad, made a report on this in January, 1917, in which he said of the Norfolk and Western electrification: "It is safe to say that the average train loading has been increased approximately 33 per cent, and the average train movements practically the same amount; in other words the track capacity has been very nearly doubled." I like to quote the careful and conservative statements of these disinterested engineers and technical writers, most of whom would rather lose a month's salary than make anything but an understatement. Mr. Babcock notes calmly the following fact: "Last May, trouble in the power house cut down the electric locomotives available from six to two in service, of which only one could be used on the hill at a time. As a result sixteen of the largest Mallet steam engines had to be brought in from other divisions in order to maintain the traffic." But I should like to have the reader note that when five electrics were for a short time out of business, it took sixteen of the best steam locomotives in existence to take their places.

On the Milwaukee there are several hundred miles of main-line electrification with current derived from water power. It is straight railroad operation. Its adoption was not a necessity, for though there are heavy grades in this portion of the line, the work could have been done by ordinary means as well as on other lines. Electrification was adopted probably because of the availability of the water power. It has worked as well here as on the Norfolk and Western, and we glean some vitally important lessons from it.

It effects a reduction of 22½ per cent in the number of trains, and cuts down the time of trains 24½ per cent. It has so improved conditions that 30 per cent more tonnage can be handled in 80 per cent of the time. This means an increase of at least 50 per cent in the capacity of the track, and probably more. But it means more than this, for this added efficiency is in the ordinary operations. When the pinch of a crisis comes electricity shows its merits. It works better in cold weather than in hot since the trouble with the electric motor, when it arises, is from overheating. Thus when the steam engine freezes up and dies, the electric motor is better than ever. In 1917–18, when the weather was bitterly cold and steam engines could not make steam, when the chief apology of the railways all over the country was that they were paralyzed by the cold, when passengers were subjected to suffering, danger to health and financial losses, when tracks were blocked by frozen engines and trains, and tonnage was cut down to the point of actual danger, industries were shut down with great losses, and normal business was prohibited, the electrified

division of the Milwaukee ran on schedule time. Often trains running over this division made up two hours of the time lost elsewhere by steam.

Handling Emergency Overloads

Other roads with electrified divisions did quite as well. The Norfolk and Western did, though at times their trolley wire was merely a string of icicles. Instead of going dead if not taken to a water tank or a coaling station every few hours, and being babied in a roundhouse half the time, these Milwaukee electrics often run twenty-four hours continuously and have made 766 miles in a day. Instead of lying down when the load limit is increased beyond a certain point, as the steam locomotive does, the electrics can handle an overload of 100 per cent in hard starts and unusual pulls without injury—for they are drawing not on their own power, but on a huge power house. All the Milwaukee electrics have ever had to do has been to increase the capacity of the road 50 per cent in normal times; but in crises they can more than double it. In crises they can do the work when steam will not operate the line at all. And this is the thing we must have. Steam works well on its stated load and under good conditions; but we must have a system that, as Artemus Ward once said, can rise to an emergency and cave in the emergency's head. This is where electricity excels. It rises to emergencies. It can carry overloads. It flourishes on bitter cold weather. And it caves in the emergency's head.

On the New York, New Haven and Hartford similar results have been noted. According to A. L. Ralston, mechanical superintendent of that road, there is one failure in every 21,000 miles run by electric, and one for every 4,000 under steam. Thus electricity is several times as reliable as steam. Fuel consumption in passenger service averages twice as great under steam as electricity. In freight service it is two and a half times as great. In switching service it is much more than twice as great. Last year the partial electrification of this railroad, according to Mr. Ralston, was saving the road $755,000 annually in its fuel bill.

Results Justify Use

This road recently put in sixteen electric switchers. Operating in the crowded terminals of New York City and vicinity and through the dense industrial belt of New England it faces a most acute terminal crisis whenever business gets good. These electric switchers on many occasions have run twenty-four hours a day for thirty days without interruption. Compare this with the steam locomotive! As I have said, the electric locomotive works best in cold weather. It does not have to be turned around. It runs without the necessary stoppages of the steam engine. Its inspection is on five times the mileage of the steam engine. Trains run at a uniform speed and can be dispatched on a close margin. Freight trains can run at a speed approxi-

mating that of passenger trains, and thus keep out of the way. Train crews make fewer delays. Division points on a fully electrified road should be at least 500 miles apart instead of about 100 as at present, and thus a part of the 5 per cent of the train crews' time lost in these division yards would be saved.

Six electric switchers on the New York, New Haven and Hartford take the place of ten steam switch engines. This is important as justifying the confidence of the road in electrification in view of its ample experience. The great terminals are the Gordian knot that must be cut in times of crisis. To cut it requires the speed, the ability to work in all weathers, the reserve of power, and the constant service of the electric. Electrification is the solution of terminal jams.

On the Philadelphia, Paoli and Chestnut Hill electrified divisions of the Pennsylvania Railroad, the schedule is made with such regularity as to amount to 10,000 train miles to every detention. On the Long Island Railroad 532 scheduled electric trains are now operating. On the Erie Railroad between Rochester and Mount Morris the line has been electrified for thirteen years. It has been tied up only once on account of storms, and then for only four hours. Steam tie-ups of ten hours to three days had occurred on several occasions.

In the St. Clair Tunnel the Grand Trunk has been operating electric locomotives for twelve years at a fuel cost of half that of steam locomotives, and delays of even a few minutes have been practically unknown.

Thirty-three electric locomotives have handled the passenger traffic in and out of Pennsylvania terminals of New York for eleven years. They have made more than 7,000,000 miles with a record of 64,437 miles per detention on account of the locomotives. They have made 11,456 miles for every minute of detention, including electrical, mechanical and man failures. The maintenance of these locomotives over all this long time has been just about one-sixth of that of equivalent steam locomotives.

The care and upkeep and inspection of the electrics are matters of interest. They may be judged from the experience of the Boston and Maine on their Hoosac Tunnel electrification, where seven electrics are used. They never withdraw these locomotives from service for general overhauling; and, so far as I know, this is true with electrics generally. The Boston and Maine inspect their locomotives on the basis of every 1,800 miles, when the main motors are blown out, brushes are replaced if necessary, clearances taken, switch groups overhauled, auxiliary motors overhauled and oiled, and other light repairs made. This is all.

The electrified terminal is an entirely different thing from the one operated with steam locomotives. Contrast the electrified terminals of New York, for instance, with the old-style ones of Chicago. The

steam-operated terminal is a nuisance. It is constantly crowded farther and farther from the center of business. But in New York electrification makes it possible for great and elegant hotels and businesses of the highest and most exclusive class to exist right alongside a great terminal. There is little noise, no smoke or steam, no hooting of engines, no human suffering and destruction of property from soot and gases. Enormous values are added to property by this close proximity of fine business property to the very center of transportation. I should not be surprised to learn after Chicago's terminals have been electrified, that the cost of the change will be found added to the value of adjacent property.

Recent Development of American Highways

15.[1] The important types of land transportation are steam and electric railway transportation and motor vehicle transportation over the highways. Highway transportation is the older type. In the early days of this country the people were wholly dependent upon the transportation afforded by the highway and upon water transportation, inland and coastal. When canals made their appearance it was believed by many that the canal and the highway should be and remain the principal means of transportation for many years to come. It is now almost a hundred years since the first steps were taken along the lines of railroad development. The venture proved such a success that it was not long before those who had vision could see that both the canal and the highway were doomed as the agencies involving the transportation of persons and property for long distances. The canal dwindled in importance and finally its use reached the stage where the canal could no longer be considered as an important factor in our transportation economy. In most cases the canals were abandoned and allowed to go into decay.

The advent of the railroad also checked the relative importance of the highway. To be sure, the highway did not go the way of the canal, but its significance as a long distance carrier waned so that it was not regarded as being more than a local transportation agency. The highway had been looked upon as a necessary feeder to the canal. When the railroads were built they supplanted the canal and so the highway was properly regarded as the necessary feeder to the rail lines. Local travel between towns and cities only a short distance apart still sought the highways—though after the advent of the electric railway and the electric interurban lines much of this so-called suburban and interurban business was diverted from the highway, also a part from the steam railroad, to the electric lines which were capable of conducting both a passenger and a freight business.

[1] Trumbower, Henry R., "Economics of Highway Transportation," *Journal of the Western Society of Engineers*, xxxi, no. 4, April, 1926.

Roads Followed Rails

In discussing the relation between the railway and the highway in this country and in England a noted English economist [1] pointed out this essential difference. In England practically all the highways had been developed and built prior to the time of the advent of the railroad: in this country, except in the old and well settled sections of the eastern states, the railroads came first and highways were later laid out and built leading off in most cases from points on the railroads to the interior country. Except for the eastern section of the country highway transportation for the most part did not assume any of the long distance aspects which characterized the English and continental systems of highway transportation. The railroad developments and extensions to a large extent became the determining factors as to the settlement of the people and the development of industries and commerce. Sections of the country without railroad facilities were slow to be developed and settled, in that population tended to follow the construction and extension of railroad lines.

Highways Became a Main Factor

This condition where the railroad was the main agency of land transportation continued to exist till shortly after the beginning of the present century. If it had not been for the invention, development and extended use of the motor vehicle, our highways would not now occupy a much changed position in our economic life than they did during the greater part of the last century. The advent of the automobile created a new demand for the use of our roads, in that it was capable of being operated longer distances than the horse drawn vehicle and thus afforded more service. Thus a new use and a new service were furnished by the existing highways. Today instead of being a secondary transportation agency and of serving as feeders to the railroads, the highways in connection with the use of the motor vehicle furnish us with one of our main and most important agencies used in the transportation of persons and goods from place to place.

This highway transportation system and equipment, which includes the vehicles as well as the roads, involves an investment of approximately $26,500,000,000. This amount can be compared with a total steam railroad investment of about 22 billion dollars. The street railways and interurban lines represent an investment which in 1922, according to the census reports, amounted to about five billion dollars. In short, we are justified in saying that the country's investment in highway transportation equals very closely the reported investment of 27 billion dollars in all steam railroad and electric railway property in the United States. The figures used in connection with these railroad investments are based on government reports and on census

[1] Mrs. Sidney Webb.

figures. The highway and motor vehicle figures can at the best be but an estimate based on the knowledge we have of the number of motor vehicles in use and of the amount and character and costs of improved highway mileage of the country.

Highway Transport Investment Equals Rail

At the end of 1925 there were 20,051,276 motor vehicles in use in the United States; 17,597,702, or about 88 per cent were passenger cars, and 2,453,574, or 12 per cent, were classified as trucks. The investment in these vehicles can be estimated as amounting to $18,551,934,832. This estimate is based upon an average cost of $866 per passenger car and an average cost of $1,350 per truck which were the actual average retail selling prices in 1925. To arrive at the total investment it does not appear unreasonable to use these figures and apply them to the total number of vehicles in use. As a matter of fact this estimate is rather conservative in that the average selling price of motor vehicles has been on the decline since the year 1920, when the peak of average prices was reached. The prices between 1918 and 1920 were also higher than the 1925 average. To say, therefore, that the passenger cars and trucks used at the present time cost the people of the country 18½ billion dollars is putting this investment at a minimum figure.

The road or highway surfacing, as it exists today, not including any expenditures for city streets and omitting any right of way values, may be estimated as representing an investment of about 8 billion dollars. The per capita investment in motor vehicles, according to these estimates, amounts to $161; the per capita investment in improved highways $69; the total investment in highway transportation of $230 per capita as compared with the investment in all the steam railroads and street railways about $235 per capita. The country's total investment in railroads, steam and electric, and in highway transportation amounts to about 53 billion dollars. This is only one billion dollars less than the total value of all the farm land in the United States according to the 1920 census. Reduced to a per capita basis, the average investment in railway and highway transportation facilities amounts to about $465 per capita.

This transportation property and equipment is all privately owned and operated with the exception of the highways which are built and maintained at public expense. This is our big experiment in public ownership. These investments in transportation agencies are owned, 15 per cent by the public and 85 per cent by private individuals and corporations. The corporate ownership field is largely restricted to the steam and electric railways; the motor vehicles are all privately owned and operated except for the small number of vehicles owned and operated by corporations engaged in furnishing some form of common carrier service.

Horses Disappear From Main Roads

In order to have a complete picture of highway transportation mention should be made of horse-drawn vehicles. The traffic counts which have been made recently show that the horse and wagon have almost wholly disappeared from the main traveled rural highways. The horse and buggy are rarely seen; horses used in transporting heavy loads are still encountered from time to time drawing agricultural products from the farm to the market. But even here the motor truck is rapidly taking the place of wagon hauling. Although the production of the principal crops of the United States increased 13 per cent from 1900 to 1924, the number of horses on farms was approximately the same in 1924 as in 1900. The following tabulation shows this change in the number of horses found on farms.[1]

1900	18,267,020
1910	19,833,113
1920	19,767,161
1923	18,627,000
1924	18,263,000

Horses, other than those on farms, decreased in number very much more: in 1900 there were 2,936,881 horses in this class and in 1910 the number had risen to 3,182,789; by 1920 it had gone back to 1,705,611. Since 1900 the number of horses in cities and towns had fallen so that in 1920 there were but 58 per cent of the number of horses found in 1900. The use of the horse naturally decreased much more in the cities than it did on farms. Although tractors are used to a considerable extent on the farms, there still are a great many farming operations which are carried on with horses. Much of the farmer's road work, however, is now done by motor vehicle. The large number of automobiles registered in the strictly agricultural States tends to prove this.

Highway Transportation

16.[2] *Modern Developments in Highway Transportation.*—Twenty years ago highway transportation was a relatively insignificant factor in the transportation field. The movement was predominantly local, the length of haul being the average distance from farm to market, and the vehicle was almost exclusively the relatively light, slow-moving, horse-drawn conveyance. During the past two decades a tremendous number of automobiles and motor trucks have been added to our highway transportation equipment. During the year 1923, 3,938,206 motor vehicles were produced in the United States, which was more

[1] *U. S. D. A. Statistical Bulletin,* no. 5, January, 1925—"Horses, Mules and Motor Vehicles."

[2] Allen, T. W., *et al.,* "Highways and Highway Transportation," in *Yearbook of the Department of Agriculture, 1924,* pp. 160-161.

than twice as many as were manufactured in 1921 and more than 1,000 times as many as were built in 1899. The production by years is shown in Table 14:

TABLE 14.—PRODUCTION OF MOTOR VEHICLES IN THE UNITED STATES 1899 TO 1923

Year	Number	Year	Number	Year	Number
1899 *.....	3,874	1914.....	569,054	1921.....	1,661,550
1904.....	21,975	1919.....	1,974,016	1922.....	2,659,064
1909.....	130,986	1920 †....	2,205,197	1923.....	4,086,997

* Production figures 1899 to 1919, U. S. Census Report.
† Production figures 1920 to 1923, National Automobile Chamber of Commerce.

From this table it will be noted that the production of motor vehicles from 1919 to 1923 has increased uniformly except for the year 1921.

The recent development of motorized highway transportation is also indicated by motor-vehicle registrations during the 10-year period from 1913 to 1923. Motor-vehicle registrations have increased from 1,258,000 in 1913 to 15,000,000 vehicles in 1923, the 1923 registration being over 1,200 per cent of the 1913 registration. The registration statistics for this period by years are shown in Table 15.

TABLE 15.—MOTOR VEHICLE REGISTRATION 1913 TO 1923 INCLUSIVE

Year	Number	Year	Number	Year	Number
1913.....	1,258,062	1917.....	4,983,340	1921.....	10,463,295
1914.....	1,711,339	1918.....	6,146,617	1922.....	12,238,375
1915.....	2,445,666	1919.....	7,565,446	1923.....	15,092,177
1916.....	3,512,996	1920.....	9,231,941		

The major portion of this number of vehicles is made up of passenger cars. In 1923, 13,457,214, or approximately 90 per cent of the total registration, was a registration of passenger cars. This proportion has remained almost constant during the past four years, indicating that the growth of motor trucking has kept pace with the growth in the use of passenger cars.

Due to the rapid development of motor transport the horse-drawn vehicle has dwindled into insignificance as a factor in highway transportation. The ratio of horse-drawn vehicles to motor vehicles has become very small on all important highways and is decreasing each

year. Studies of traffic on the California State highway system in 1920 and 1922 indicate a decrease in horse-drawn vehicles from 2.3 per cent of all traffic in 1920 to 1.2 per cent in 1922.

An analysis of traffic records on two toll bridges in the State of Connecticut indicates a similar falling off in horse-drawn traffic. Of the total traffic over the two bridges, 1.95 per cent in 1920 and 1.06 per cent in 1922, was made up of horse-drawn vehicles.

In California from 1920 to 1922 highway traffic increased 47 per cent. During the same period traffic on the Connecticut toll bridges increased 48.8 per cent. The close similarity between the increase in traffic at these widely separated points is indicative of the uniformity of the rapid increase in highway traffic, although the increase in other sections of the country, due largely to local conditions, naturally varies by a considerable amount from these figures.

Another important development in highway transportation, is the rapid increase in the number of commercial motor-truck and bus lines. Until recently highway transportation was carried on very largely in privately owned vehicles. The last few years, however, have shown a remarkable development in highway transportation as a business.

Due to the fact that governmental control and regulation of highway transportation is a new development in most States, and entirely absent in many, reliable statistics of the development of commercial motor-truck transportation are difficult to obtain. As indicative of the growth there were in 1922 in California, 719 motor-vehicle lines operated under permits issued by the railroad commission of the State. During the period from 1920 to 1922 the number of passenger motor-bus lines increased 146 per cent and the development of motor-truck lines has probably been equally rapid.

Commercial highway transportation is still in the early stages of development. Its coördination with other types of transportation in such manner as to provide the most economical transportation for all types of business is one of the important economic problems connected with the development of an efficient transportation system for the United States.

Federal Aid in Road Building

17.[1] The consummation that is the desire of everyone is a connected system of highways which will permit the free flow of travel from point to point without the annoyance of frequent interruptions by unimproved roads. We began moving toward that end in 1891, when New Jersey passed its State-aid law. The movement was accelerated and the ultimate attainment of the end was assured when, on July 11, 1916, the President signed the Federal-aid road act.

A hundred years before the Federal Government had been active in the construction of roads. Many of the principal roads of the West

[1] Allen, T. W., *et al.*, "Highways and Highway Transportation," in *Yearbook of the Department of Agriculture, 1924,* pp. 100-103.

and Middle West were originally laid out and built as military roads connecting the forts which dotted what was then a wild and sparsely settled country. In 1811 it began the construction of the great National Pike, which was to extend from Cumberland, Md., to St. Louis, on the Mississippi, and serve as one of the principal arteries of communication for the settlement of the great Northwest Territory. The improvement of this road was carried on more or less actively until 1840, and the road was built and surfaced with stone throughout practically the entire distance from Cumberland to the western Indiana line, when it became apparent that the newly constructed railways would rapidly replace the highways as the ties which would unite the far-flung settlements that were springing up over a vast area. So strong was the conviction that the highway would be practically entirely displaced by the new kind of transportation that the National Pike for the rest of its length, from the Indiana line across Illinois to St. Louis, was not surfaced with stone, but was graded, in the belief that the grade would eventually serve a railroad. The last Federal appropriation for the National Pike or Cumberland Road, as it was called, was made in 1838. From that time until 1893 the National Government took no part whatever in the construction and maintenance of the roads.

In that year there was created in the Department of Agriculture a small office with an annual appropriation of $10,000, which was assigned the task of studying the existing highway situation and reporting upon the best methods of road construction and maintenance. This Office of Road Inquiry, as it was called, was destined to continue its work of study and research from year to year imparting to the local road-builders the knowledge it gained by building as models short sections of road, known as object-lesson roads, in numerous counties.

When, finally, in 1916 the passage of the Federal-aid road act provided for resumption of active Federal participation in road construction the former Office of Road Inquiry, then grown into the Bureau of Public Roads, was given the duty of supervising for the Government the construction of the Federal-aid roads, and its long study of road conditions throughout the country enabled it to perform that duty with intelligence and efficiency.

To the extent of the money it appropriated, the Federal-aid road act authorized the Secretary of Agriculture to participate in the improvement of post roads up to 50 per cent of the cost of the improvement, providing that the aid granted to any particular project did not exceed $10,000 a mile, exclusive of the cost of bridges more than 20 feet long. But the most important and far-reaching provision of the law was its requirement that the States desiring to receive the Federal aid would first have to create a State highway department adequate in authority and equipment to coöperate with the Federal Government and assume the responsibility for the immediate supervision of the construction. Up to the year before its passage there were still six

States which had no State highway department, and a number of the departments that had been created had been given only nominal authority. As the wisdom of the policy of State control had been thoroughly proved through a score of years, the Federal act made its adoption a condition of the receipt of the Federal aid and thus at one stroke brought about the creation of departments in the laggard States and made State control a real factor in highway construction in a number in which it had hitherto been only nominal. The first Federal act, therefore, had the effect of accelerating a tendency toward State control which had already been proved to be the wisest course by the experience of the leading States.

Upon the foundation thus laid down the Federal highway act, passed five years later, added two other requirements which are destined to have a profound effect upon the course of highway improvement. First, it authorized the Secretary of Agriculture, in coöperation with the State highway departments, to designate a system of main interstate and intercounty highways, limited in each State to 7 per cent of the total mileage existing at the time of its passage, and thus imposed upon the backward states another important principle which had previously been found successful in the experience of the leading States. The act of 1916 having brought about the universal adoption of the principle of State control of main roads, this new act led to the adoption of a definite program of improvement, extensive enough to serve the most imperative needs of all States and the Nation as a whole, but so limited that its completion can be expected in a few years. And to this requirement it added the further stipulation that the roads built must be maintained—by the State highway departments if, as is confidently expected, they will, but if not, then by the Federal Government.

The importance of the Federal legislation then is that it embodies and applies those principles which have been found to be most successful in the experience of the most advanced States, and it has caused the adoption of these principles by all States much sooner than they would have been adopted on the initiative of the States. Among these principles, the application of which is extended to all States by the Federal laws, are (1) the engineering control of main roads by State highway departments, (2) the designation of connected systems of main roads to be constructed under State supervision with funds under State control, and (3) the continuous maintenance of such roads by the State highway departments.

Mileage and Classification of American Highways

There are 2,941,294 miles of roads in the United States according to the most reliable estimates, a mileage so great that if it measured a single continuous road, that road would encircle the earth more than 100 times. Not all of this mileage, however, is of equal importance from the standpoint of the transportation service it is called upon

to render. Some of it consists of roads used by so few people that they hardly should be considered as public roads at all. Another portion of it consists of neighborhood roads, the cross roads which run between the more important local roads and lead to a few farms. Still another portion consists of the principal local roads, which, branching off from the main arteries pass through a fairly large agricultural area and lead to the small towns. Next in order of importance are the main arteries of the States, the backbone of the whole system, which run between the large cities by the most direct routes, and feed and are fed by the principal local roads which branch off from them. Finally there are roads of interstate importance relatively small in their total length, and in the main coinciding in each State with the main trunk lines of the State system. These are the through roads, the transcontinental trails, which run between the principal cities of the nation. Whether they are officially so recognized and classified or not, all roads by virtue of the traffic they carry belong to one of these classes, which may be called (1) interstate roads, (2) State roads, (3) county roads, and (4) local roads.

The Federal-aid Highway System.—In accordance with the Federal highway act, the Secretary of Agriculture, acting through the Bureau of Public Roads, and the officials of the several State highway departments, has recently designated the roads which constitute the Federal-aid highway system. These roads, which form a connected system covering the entire United States, have at present a total length of 171,687 miles. The greatest mileage which can be included in the system, under the terms of the act, is approximately 200,000 miles. The roads, thus officially designated, comprise, in the main, all roads referred to above as interstate roads. They reach directly nearly every city of 5,000 population or greater, and are so chosen that if a zone 10 miles wide was marked off on each side of them, these zones would include the homes of 90 per cent of the population.

Resume of State Highway Activity in Connecticut

18.[1] It has been shown that, beginning in 1895, when the State first undertook to participate in highway improvement, that participation has grown from a monetary contribution and an advisory relation to the construction of roads selected, surveyed, and planned by local authorities, to a positive control over the construction and maintenance of the roads of a defined system, including entire responsibility for the design, construction, and upkeep.

From a contribution of one-third of the cost of constructing roads which thereafter were maintained at the expense of the towns, and an annual expenditure limited to $75,000 a year, the State has gradually assumed a larger and larger responsibility until it is now paying the

[1] *Report of a Survey of Transportation on the State Highway System of Connecticut by the Bureau of Public Roads, United States Department of Agriculture and the Connecticut State Highway Department,* pp. 29-31. Washington, 1926.

entire cost of the trunk-line construction, which constitutes the great bulk of the work done, and the entire cost of maintaining both the trunk-line and State-aid roads, the expenditure in 1924 amounting to nearly $8,700,000.

In the beginning the state highway department consisted of the commission and its clerical assistants. There were no engineering subordinates. To-day its duties require an elaborate engineering organization employing over 1,300 persons, most of them needed because of the transfer of control over the maintenance of the main roads of the State from the towns to the State department.

From a method of financing the State's highway operations, which depended in the beginning entirely upon the taxation of property, there has developed a system under which the taxation of the increasing numbers of motor vehicles and the fuel used by these vehicles supplies a fund which is upwards of 70 per cent of the gross highway expenditure of the State and over 90 per cent of the net expenditure after deduction of the refunds paid by the towns.

As for the improvement of the highways it has been shown that the interval since the creation of the State agency in 1895 has been divided into two periods; the first, or pioneer period, extending to 1913, and the period of modern development, which, beginning at that time, extends to the present day. During the earlier years of the pioneer period the roads to be improved were chosen by the selectmen of the towns and were surveyed, planned, constructed, and maintained by the local officials. Under this system no continuity of improvement was possible. The roads built were surfaced mostly with gravel or macadam. Planned for horse-drawn traffic and well adapted to that use, they were totally inadequate for the heavy motor vehicle traffic which has developed during the last decade. By the close of the earlier period there were over 900 miles which had been graded and for the most part surfaced with gravel or macadam. Less than 6 miles were more durably surfaced. The majority of these old surfaces have been rebuilt or incorporated in the wider and more adequate improvements which have been made during the period of modern development.

In this latter period there has been considerable progress toward the consistent improvement of a connected system of main roads. From its beginning there has been a more or less definite plan of trunk-line highway development which has been amended and added to repeatedly, so that in 1923 it included approximately 1,566 miles of which 1,114 miles had been variously improved. The improvement that has been made and the maintenance of the improvements under a rapidly growing motor-vehicle usage are highly commendable. Yet the fact that only 32 per cent of the improved State roads in 1923 was surfaced with concrete, bituminous, or other types of modern pavements is sufficient to indicate that a great deal of work remains to be done to make the State highway system truly adequate for the traffic of the present and the immediate future.

The State highway commissioners for several years have called attention emphatically to the rapidly increasing traffic on the State highways; to their inability to construct new roads or to reconstruct the existing State highways as fast the public demands and the needs develop; and to the fact that the roads already built are deteriorating faster than the maintenance forces can keep them in repair.

The present commissioner has recommended a program for State-aid roads through a 10-year period, so as to build up a comprehensive and well-devised secondary system to supplement the trunk-line highways; providing also that future additions to the trunk-line highways be made contingent on the towns furnishing to the State rights of way 100 feet wide, so as to keep pace with the growth of motor-truck and passenger transportation.

This plan would, he said, "permit the establishment of a hard-surfaced road in the center; would provide space for beautification, such as the planting of shade trees, the systematic erection of telegraph, telephone and power lines, and ample provision for sidewalks, trolley lines, sewers, and waterways."

He also recommended a new classification of the State highways based on traffic volume and intensity of traffic as follows:

> "Terminal highways, meaning highways in industrial areas or which connect centers of population not widely separated where there is need for the trucking of loads in large-capacity trucks.
>
> "Class A highways where there is a considerable volume of heavy truck hauling, but not so great as on the terminal highways.
>
> "Class B highways where there is a comparatively small volume of heavy truck hauling of a type not necessitating the use of extremely heavy units.
>
> "Class C highways, those highways not included in terminal highways, Class A and Class B highways, where the traffic consists chiefly of passenger motor vehicles."

His reason for the foregoing classification was that, in his opinion, 90 per cent of the present highway traffic can be served adequately by a medium-priced road and that it is not economical to provide for the carriage of heavy loads on all of the highways.

The department has made a tentative program of work to be done during the 15-year period beginning with the year 1925. . . . Within 10 years it is estimated that 1,506 miles of State highway must be rebuilt or resurfaced. The expectancy of "probable years before reconstruction" is as follows:

	Miles
1 year and less	206
2 to 3 years	436
4 to 5 years	642
6 to 9 years	222
10 years and more	339

In other words 206 miles of the system need immediate reconstruction; 436 miles may last from 2 to 3 years before such radical treatment is required, etc.

The department is not ready to make public the estimates or the annual expenditure which this program will entail, if indeed it is able to make such an estimate with any degree of accuracy, but it is evident that the State highway budget must be increased greatly to do the work as planned.

Since the beginning of the reconstruction work about the year 1913, 461 miles of trunk-line highway and 102 miles of State-aid roads have been reconstructed, a total of 563 miles. The new program calls for the rebuilding of nearly 1,300 miles in about 5 years, and before the year 1930.

History and Status of the Telephone (1902)

19.[1] Statement of Edward J. Hall

Vice-President and General Manager of the American Telephone and Telegraph Company

The telephone first received general public notice at the Centennial Exposition held in Philadelphia in 1876, and immediately following this, attempts were made to develop its commercial use.

At the outset its possibilities were appreciated dimly, if at all, and with the crude instruments and electrical appliances then available its range of communication was extremely limited.

At first agents were appointed by the Bell Company to rent telephones and bells for the equipment of short private lines; that is, lines connecting a man's office with his factory, or his house with his stable. Each customer built his own line, usually employing the agent who rented the telephones for that purpose, and the agent's income was derived from the profit on this construction and a commission on the rental charged for equipment.

Very shortly it became evident that it would be an advantage to the owners of these lines if they could be interconnected at some central point, constituting what is now known as a telephone exchange. When this had been arranged for, applications began to come in from customers who desired to be connected with the exchange, but did not care to build their own lines for that purpose, preferring to have them furnished by the agent at an annual rental. Such use as was made by the individuals of public highways was, of course, unlawful, and no substantial business could have been built up on this basis, making it necessary that quasi-public corporations should be formed for this purpose.

The construction of these exchanges on any considerable scale

[1] *House of Representatives, 57th Cong., 1st Sess., 1901-2, Doc. No. 178. Report of the Industrial Commission on Transportation* (2nd volume on this subject). *Vol. ix of the Commission's Report,* pp. 817-819.

throughout the country also called for an investment of capital, which neither the Bell Company nor its agents could furnish, and steps were therefore taken to organize local companies everywhere, each company having exclusive exchange rights within the area allotted to it, and the Bell Company reserving to itself, or to other licensees, the right to connect exchanges with each other by trunk lines.

As would naturally be expected, some of the companies thus organized were progressive and energetic and others were not, so that in some places the public was well served (so far as the crude methods then in use made that possible) while in others it was badly served, and the business inadequately developed.

So long as the service was purely local this had no generally bad effect, but when intercommunication between exchange areas was attempted many difficulties naturally resulted. To meet the demand for this intercommunication the Bell Company (not itself undertaking to construct and operate lines) issued licenses for lines connecting these small local companies, sometimes to parties not holding exchange licenses but usually to such licensees, and naturally to the most progressive of them.

The difficulty of maintaining satisfactory interconnecting line service under such conditions led to the purchase of many of the local interests by companies organized on a larger scale to operate over wide areas. This process brought about many improvements both in the better construction and operation of the interconnecting lines and also in the local exchanges, which of necessity had to be reconstructed and improved in order to make communication over longer distances practicable. At that time the state of the art made it impossible, under the most favorable conditions, to talk satisfactorily between points any considerable distance apart, but fairly good service was given between the larger exchanges and their suburban tributary points.

Up to 1885 the apparatus in use was adapted wholly to grounded circuits, and the use of iron and steel wire was universal. Lines were constructed on poles or roofs of buildings. The use of hard-drawn copper wire, which has made transmission over great distances possible, was unknown, but the possibility of its use had been suggested as a means of establishing real long-distance service.

For the purpose of testing this idea an experimental circuit of hard-drawn copper wire was tried, and the result was so promising that early in 1885 the American Telephone and Telegraph Company (which has since been popularly known as the "Long Distance Company") was organized and the construction of a commercial line between New York and Philadelphia at once commenced.

It was 2 years after this before the experimental line was ready for public service, and that period was filled with trials and discouragements before a successful result was finally achieved.

It was determined to try the experiment on a large scale, and heavy

poles, 45 feet in length (an unusual size at that time), were erected. Upon these poles 24 hard-drawn copper wires were strung, the method of handling and connecting this wire in use to-day being substantially worked out at that time. It was believed that by using these wires in metallic-circuit pairs inductive disturbances would be eliminated, but when the line was finished it was found that conversation on any one of the circuits could be readily overheard on any of the others, and that the line would be a commercial failure unless this could be overcome.

Skillful inventors were asked to work on this problem, and after much study and many experiments a successful solution of the problem was finally reached.

Another serious difficulty was encountered in transferring the current from the metallic-circuit trunk lines to the grounded-circuit wires which were then used by the local exchanges. A method and apparatus for this purpose were worked out, as it was the purpose of the company from the outset not to undertake the method which largely prevails in other countries—of requiring users of the lines to come to special toll offices at the terminal points. It was not thought that the American business man would take kindly to this waste of time; and it is believed that this policy, then established, has had much to do with the great development of trunk lines in this country as compared with any other in the world.

About this period, and following on for the next few years, a number of causes were at work leading finally to the introduction of the metallic-circuit service in the local exchanges, which, to accomplish this, were obliged to go through another era of plant reconstruction.

Wires had multiplied to such an extent that a general demand arose to have them put under ground where they were heavily massed in the business centers around the large exchanges, and the rapid development of high-tension currents for electric-lighting and street-railway purposes tended to seriously impair and, in some cases, make almost inoperative the service given in the local exchanges over single wires using the ground for a return.

Inventors were again called upon to devise cables suitable for use under ground, and cables have been so far perfected that today, for short distances, they are as satisfactory as the old overhead wires, and are generally used where wires would otherwise be massed on poles in the principal streets of our cities. Unfortunately, cables are very detrimental to the efficiency of transmission over long-distance lines, and every effort is made to eliminate them in the long-distance service, except in the short section from the terminal exchange to the customer's station.

At this point I might call your attention to the fact that constant and rapid changes in the extent and character of service furnished and the continuous reconstruction of the plant demanded by the

changes in conditions to which I have referred, and by the perishable nature of the materials and apparatus employed, have made the question of rates for service one of great complexity for the managers of telephone companies.

At the outset rates were made by men who necessarily had had no experience in the business, and in many cases they made prices below the actual cost of service and even when they fixed prices which adequately provided for existing conditions the increase in size and cost of exchanges soon tended to make a fixed flat rate unprofitable.

The result of this was that many of the companies were losing money and advances in rates became absolutely necessary. It was natural that these advances should meet with resistance from their customers and become in many States a matter of legislative consideration and investigation.

As a result of this study of the subject and the knowledge acquired by longer experience, both parties have come to a better understanding. What helped more than anything else to bring this about was the recognition by telephone managers of the fact that the true unit of charge is the message, and the recognition by the customer that it was reasonable and just that he should pay in proportion to service rendered. This makes it the interest of the exchange manager to furnish the best possible service in order to promote traffic, and satisfies the small users—who always constitute the great majority—that they are not called upon to pay an unnecessarily high price for their service in order that great corporations and business houses may have service at cost or below. So-called flat rates are reasonably equitable in smaller places, where the conditions as to facilities and traffic are fairly uniform, but they have no place in the service of a large city where these conditions do not prevail.

Trunk-line rates have shown less variation because they were originally started on the correct principle of charging by the message. Originally the rates established were usually about 1 cent per mile for the time actually consumed in conversation, with an allowance of 5 minutes for each message. It having been found that many messages actually consumed less time than this, a substantial reduction in the rate was made by reducing the initial message period to 3 minutes and making a proportionate reduction in rates, so that the prevailing rate to-day in this country is substantially three-fifths of a cent per mile for a conversation of 3 minutes, with a proportionate increase for use in excess of that time.

Stated in another way: The trunk-line customer pays one-fifth of a cent per mile for each minute of conversation, but is required to guarantee a use of at least 3 minutes.

The development of all classes of telephone service in this country so greatly exceeds that of foreign countries that it is a fair assumption that service and charges are comparatively more acceptable to the people here. Speaking generally, the charges for service are higher

here than in Europe, but there are so many differences in conditions, both as to character and amount of service furnished, and as to the cost of construction and operation, that it is almost impossible to make a fair comparison. The greatest single factor is the low cost of labor in Europe compared with its cost here. I understand that this has been fully presented to you by other witnesses, and I will not go into details which would be largely a repetition of testimony already received.

I want to say a word more on this subject, and that is that in relation to charges for long-distance service many of the figures reported from other countries are misleading; as, for instance, in Germany, between points where the message charge would be, say 25 cents, it is necessary, if one desires prompt service, to make what is called an "urgent call," for which the charge is three times the regular rate. In Sweden, for prompt service, or for service at fixed hours, double rates are charged, while in Holland the regular schedule is doubled between noon and 4 p. m.

In general the number of trunk lines provided in Europe is very limited, and a customer has no idea when he will be served unless he offers in advance to pay two or three times the tariff rate.

The service is also subjected to many embarrassing restrictions; as, for instance, in England a customer at a public station is absolutely limited to a 3-minute conversation, no matter how much he may desire to continue it, and this rule also prevails in other countries. The small size of many of these countries as compared with our own, and their greater density of population, are also very important factors in the consideration of any traffic problem.

What may be called the present era of telephonic development in this country really commenced with the opening of the long-distance line between New York and Philadelphia on the 1st of January, 1887. In 1886 and 1887 lines were commenced from New York to Boston and New York to Buffalo, and since that time there has been a constant extension and development both of lines and of the apparatus necessary for their operation, until at the present time the American Telephone and Telegraph Company and 38 associated companies, forming what is known as the Bell system, now furnish local exchange service to about 900,000 stations and trunk-line service over nearly 700,000 miles of wire.

The capital stock of the American Telephone and Telegraph Company has been increased from time to time as its part in this development has required, both for the construction of long-distance lines and the purchase of telephones, telephonic apparatus, real estate, and stocks representing investment in telephone property.

The following table shows the capital outstanding from time to time, the amount outstanding July 1 being held by over 8,000 stockholders, or, to be exact, by 8,120:

Mar. 3, 1885	$ 100,000	Jan. 1, 1894	$ 7,250,000
Jan. 1, 1886	100,000	1895	7,500,000
1887	100,000	1896	12,000,000
1888	100,000	1897	20,000,000
1889	2,500,000	1898	20,000,000
1890	4,000,000	1899	20,000,000
1891	4,750,000	1900	70,975,500
1892	5,000,000	1901	89,100,500
1893	5,000,000	July 1, 1901	94,237,500

The increase between 1899 and 1900 was partially due to the purchase of the property of the American Bell Telephone Company.

The authorized capital has been increased to $150,000,000, and stock to the amount of $20,709,000 has been offered for subscription at par. In addition, collateral trust 4 per cent bonds have been sold to the amount of $15,000,000, of which $5,000,000 have been sold during this year, and are, therefore, not included in the last annual report, which I present with and make a part of this statement.

This report gives full details as to the assets and liabilities of this company, its receipts and expenses, together with full information as to the plant, and operating statistics of this and its associated companies.

Respectfully submitted,

EDWD. J. HALL,
Vice-President and General Manager.

Recent Developments in Electrical Communication

PROGRESS OF THE TELEPHONE ART

20.[1] In the fifty years of telephone history the telephone engineers have overcome one by one the barriers of speech transmission. From the very beginning the progress of the art has been marked by epoch-making advances due to inventions and improvement in apparatus and equipment. Some of the more notable achievements in the art are as follows:

The development of the switchboard without which no interconnecting group of telephones would be possible, which was the beginning of the telephone exchange system.

The discovery of the process of hardening copper wire and its application to telephone circuits, improving transmission and making long distance telephone circuits possible.

The substitution of a pair of wires for a single wire with a grounded circuit, greatly improving transmission by eliminating the disturbances caused by contact with the earth.

The multiple switchboard, making possible the expansion of the exchange system by providing positions at the switchboard for a large

[1] American Telephone and Telegraph Company, *Things Worth Knowing About the Telephone*, pp. 14-17, 22-29.

number of operators, each answering the calls on a certain number of subscribers' lines, and because of the duplication of all the subscribers' line terminals at each section of the switchboard, each operator able to connect the calling subscriber with any other subscriber in the same central office, be they one thousand or ten thousand.

The development of the underground cable, enabling the removal of pole lines from the main thoroughfares of the large cities, and the aerial cable, reducing the number of cross-arms and the size of the poles.

The transposition of telephone circuits, thereby minimizing the interference with other telephone circuits and of high power electric light and feed wires.

The development of the loading coil, which, placed at regular intervals in the long distance circuit, greatly reduces the energy losses and permits much longer talking distance.

The phantom circuit, which is made possible by utilizing two physical telephone circuits to create a third independent circuit.

Carrier-current telephony, in which the telephone current is combined with a high-frequency current, transmitting this combination over a line wire and at the receiving end removing the high-frequency current and leaving the telephone current, making it possible to transmit simultaneously several telephone currents over a telephone circuit.

The application of the repeater or current amplifier to loaded long distance circuits, further increasing the range of long distance telephony; also, its application to overhead and underground cables, making it possible to greatly extend the use of cables in place of open-wire construction and also allowing the use of smaller gage wire.

The range of possible use of cable has been gradually increased until by 1920 conversation was possible through 2,000 miles of cable, and methods have since been developed which will make conversation scientifically possible through 3,000 miles of cable equal in all respects to a conversation from one room to another in the same building.

Improvements in the design and in the methods of manufacture of cables for local exchange use have made it possible to greatly increase the number of wires which may be within a cable sheath of given size. By employing wires of smaller diameter than those heretofore used, the maximum number has been still further increased.

Developments in submarine cables including the use of single conductor cables, the telephone amplifiers and terminal telegraph apparatus and the devices for permitting the telephone and telegraph to operate simultaneously, all differing radically from past practice.

The perfection of apparatus to transmit directly photographs, drawings, signatures and finger-prints over telephone lines.

. . . . . .

Radio Telephony

Thorough research and extended experience demonstrate that the field of the wireless telephone is in maintaining communication between

ship and shore, from ship to ship, or for talking from the ground to moving aircraft, or from airplane to airplane, or as an extension of the wire system bridging strips of desert or bodies of water, where it is impracticable to employ wires.

Before the advent of the three-electrode vacuum tube, attempts to communicate by radio telephony were discouraging. In 1912 telephone engineers began development of the tube as a long distance wire telephone amplifier or repeater. So satisfactory were the results that work was immediately begun on much larger tubes, to be applied to radio telephony.

The first successful demonstration of radio telephony, employing vacuum tubes, took place in 1915 when Bell System engineers talked from Montauk Point, Long Island, to Wilmington, Delaware, a distance of 250 miles. Later in the year, messages from Montauk Point were received at Jekyl Island, off the Georgia coast, 900 miles away. Messages from New York, carried by land lines, were automatically relayed to the radio equipment at the Long Island station and received in Delaware and Georgia—the first use of radio as a supplement to wire telephony.

Experimental transoceanic telephony by radio was first achieved in October, 1915, when speech was carried by electric waves from the Arlington station, near Washington, D. C., across the Atlantic to the Eiffel Tower, Paris, and also across the American continent and the Pacific to Honolulu, Hawaiian Islands. This latter distance is over 5,000 miles. A telephone message was sent by wire from New York to Washington and thence by wireless to San Francisco. Power tubes now in use have 400 times the output of tubes of approximately the same size, used in these demonstrations.

The World War saw the revolutionizing of most methods of warfare and it also revolutionized communications for many military and naval purposes. As a means of establishing quick communication with airplanes and between naval vessels, such as units in a submarine-chaser flotilla, the wireless telephone proved particularly useful. American engineers developed many important radio improvements during this period.

During ship-to-shore radio experiments in 1920, two-way telephonic communication was maintained for several months between several cities and two ships, the messages going by wire between these cities and the Bell System's experimental radio station at Deal Beach, N. J., and thence to the ships by radio.

Radio Broadcasting

The year 1921 saw the advent of radio broadcasting on a scale which attracted hundreds of thousands of listeners. Stations at New York, Newark, Pittsburgh, Schenectady, Chicago and other cities began broadcasting music and entertainment. In further connection with its radio experimentation, the American Telephone and Telegraph

Company opened station WEAF in New York. Broadcast programs, at first, comprised those given only in the radio station "studios." As radio audiences increased in size, it became evident that greater diversity of programs would increase their popular interest.

During 1922 grand opera, public meetings, athletic contests, etc., were made available for broadcasting by the installation, at the location of the programs, of microphone transmitters, including those used by expert announcers, which were in turn connected with the broadcasting studio by telephone lines, often hundreds of miles long and specially adapted for the purpose.

The long distance telephone lines also made possible the simultaneous radiation of one program from several widely scattered broadcasting stations. One of the first events of national importance to be thus given to the public was President Coolidge's first message to Congress on December 6, 1923, which was simultaneously broadcast by six radio stations, in New York, Washington, Providence, Kansas City, St. Louis and Dallas. On July 4, 1925, "Defense Test Day," twenty-eight stations were connected with Washington, D. C., to participate in a test of communications facilities for national mobilization and on February 22, 1927, 43 stations serving every part of the United States, broadcasting President Coolidge's Washington's Birthday address at Washington, D. C., to more than 20 million listeners. On June 11, 1927, the Lindbergh ceremonies at Washington, D. C., were broadcast to 50 stations.

Transatlantic Radio Telephony

Bell System experiments in transoceanic radio telephony resulted, in January, 1923, in one-way transmission of speech from New York to London. On January 14, 1923, telephone officials talked continuously for two hours by wire and radio from their offices in New York to a group of scientists and engineers assembled in London for the test. On March 7, 1926, for the first time in the history of communications, groups of people both in America and England conversed together by wire and radio during a test of two-way transatlantic telephony. The circuit terminated in America in the long-distance headquarters of the American Telephone and Telegraph Company, in New York City, and in England the circuit terminated in the long-distance headquarters of the British Post Office, in London.

The goal of this long experimentation was commercial service between America and England through the combined use of wire telephony and radio. . . . President W. S. Gifford of the American Telephone and Telegraph Company, opened commercial service between New York and London on January 7, 1927. On that occasion he said "Thus the people of these two great nations will be brought within speaking distance across three thousand miles of ocean. Individuals may by telephone exchange views and transact business instantly as though they were face to face."

The service was extended on January 22 to include New York State and the New England States. On January 29, it was made available between telephones in New Jersey, Delaware and Pennsylvania and telephones in England, Scotland and Wales, and the following week it was extended to include Virginia and Ohio. Further extensions followed in quick succession as operating difficulties were studied and overcome until it is now possible to talk from any part of the United States by wire and radio to all parts of the British Isles, Cuba and parts of Canada.

In talking from New York to London, the voice of the speaker travels over both wire and radio circuits. From the local central office it goes by telephone circuit to the Long Distance office in New York, thence to the transatlantic radio transmitting station at Rocky Point, Long Island, where powerful amplifiers multiply the strength of the electric waves for the long jump across the Atlantic to the new radio receiving station at Cupar, Scotland. From there the voice waves travel by wire to a Long Distance switchboard in London and on through the local central office to the called subscriber. The voice of the Londoner talking to New York travels a different route, going by wire to the radio transmitting station at Rugby, England, and being received at the Houlton, Maine, radio receiving station, reaching New York via a telephone circuit.

Expanding Picture Service

The picture transmission service over the telephone lines of the Bell System, between New York, Chicago and San Francisco, was expanded during 1926 by the installation of transmitting and receiving apparatus in Boston and Cleveland, and early in 1927, telephotograph service was extended to St. Louis, Atlanta and Los Angeles.

Television Demonstrated

The first public demonstration by wire and wireless of Television or "Distant Seeing" as developed by the technical staff of the Bell Laboratories, Inc., took place on April 7, 1927. Participating in the demonstration at Washington, D. C., and New York were notable gatherings of leaders in the fields of science, industry and public affairs. Those who talked from the Bell Laboratories in New York were able to see plainly the features of those in Washington with whom they conversed over the long distance circuits of the Bell System. By means of a larger screen and loud speakers all those present at New York were able to see the speakers at the National Capital and to hear the conversations over the wire.

This Television demonstration between Washington, D. C., and New York over the telephone circuits of the Bell System was followed by a demonstration of Television by radio in which the audience at the Bell Laboratories in New York saw the artists visualized on the screen and

heard a varied program from the radio experimental station of the Laboratories at Whippany, N. J.

Decline of the Merchant Marine

21.[1] Americans Ahead in Steamships

Rivalry between American and British ocean steamship lines on the North Atlantic from 1850 to 1855 had demonstrated that the Yankees were as skillful in engineering as they had long been in seamanship. Captain McKinnon of the British Navy, after voyages of observation in both the Collins and Cunard liners, reported to his government that "there are no ocean steamers in England comparable with the (American) *Baltic*."

But there was one serious weakness in the situation. All of the new American ocean steamers were built in the North, owned and manned by northern men, and registered at northern seaports. The sectional slavery feud between the States was growing more and more bitter every day, and southern men were in control in Washington. These ocean steamships, maintained by subsidy from the National treasury against their equally subsidized British rivals, were a formidable addition to the commercial and naval power of the North. For the same reasons why the strengthening of the Federal Navy was suspended, the mail subsidies were taken away from the great, successful American ocean steamship services in the very crisis of their contest with their British competitors.

Our Shipping the Victim of Sectional Attack

This was done, after a memorable struggle, in 1856 and 1858, under the direction of several distinguished Southern men, Jefferson Davis of Mississippi, afterward President of the Confederacy, R. M. T. Hunter of Virginia, afterward Confederate Secretary of State, S. R. Mallory of Florida, Confederate Secretary of the Navy, Robert Toombs of Georgia, a leading member of the Confederate Congress and Secretary of State, Judah P. Benjamin of Louisiana, Confederate Attorney General, and J. M. Mason of Virginia, well remembered with Mr. Slidell as Confederate envoys to Europe.

These able and eminent Southern statesmen doubtless believed that they were serving vital interests of their own people, but not all of their own section coincided in their action. Though they received some help from agricultural States of the West and Southwest, Senator Bayard of Delaware eloquently protested against the abandonment of American Steamship enterprise as a surrender to the British government, and the action of Congress in withdrawing the subsidies was generally condemned by men of all parties in the North as blindly sectional and disastrous.

[1] *The American Merchant Marine, Its Rise and Decline, and the Best Methods to Restore It.* Report of the Special Committee on Merchant Marine of the Boston Chamber of Commerce (1915), pp. 7-12. Used by permission.

How British Subsidies Won

Disastrous, indeed, it quickly proved. When in 1856, the Southern lawmakers reduced the Collins mail pay from $858,000 to $385,000—The British Cunard ships were then receiving $856,000—the managers of the chief American line to Europe refused to give up the fight, and struggled on for a time. But the odds were hopeless, and they were forced to quit the field. Their largest ship, the splendid *Adriatic*, was sold to a new British subsidized line from Galway and held the Atlantic record under the British flag. One by one the other American Atlantic lines succumbed, and when Commodore Vanderbilt, with all his wealth and genius, attempted to compete with the British lines without a subsidy, he was unable to withstand the treasury of the British government. When the Civil War opened in 1861, only occasional American steamships were running to Europe. British subsidies had won the fight.

The Collins Company had lost two steamships by wreck and its failure is sometimes attributed to this misfortune. But many more ships were lost by the British Atlantic lines. The Royal Mail had seven steamers destroyed in quick succession. But the British government instead of abandoning the Royal Mail stood by it more resolutely than before, and enabled it to build new ships and maintain its service.

Perhaps the greatest New York merchant and shipowner of this time was A. A. Low, Esq., the distinguished father of Hon. Seth Low, formerly Mayor of New York and President of Columbia University, and now President of the New York Chamber of Commerce. The elder Low in a formal statement to Congress, speaking as an eye witness thoroughly familiar with the facts, declared:

> "I only know the English have always, in peace and war, manifested a determination to hold the supremacy on the ocean, and the supremacy which they acquired by arms in war they have in peace acquired by subsidies. They have deliberately and intentionally driven the Americans from the ocean by paying subsidies which they knew our Congress would not pay. . . . They have driven us from the ocean by that policy just as effectually as they ever did drive an enemy from the ocean by their guns."

Great Britain in 1860–1861 was expending $4,537,223 in the encouragement of steamship building and mail communication with all parts of the world. France, following the British example, in 1858 offered subsidies of $620,000 a year for a line from Havre to New York, $940,000 for a service to Brazil and $1,300,000 for a service to the West Indies and Mexico. Germany at about the same time began to subsidize the North German Lloyd on the routes from which the swift American ships had disappeared. The slavery feud had killed the American merchant marine in trans-Atlantic Commerce.

Effects of the Civil War

After the destruction of our trans-Atlantic mail lines came the Civil War. Anglo-Confederate cruisers between 1861 and 1865 burned or sank 110,000 tons of American shipping, and drove 751,595 tons under foreign colors—nearly one-third of our whole fleet registered for overseas carrying. This ocean trade fleet, which had amounted to 2,496,894 tons in 1861, controlling 65.2 per cent of our imports and exports, had shrunk to 1,387,756 tons in 1866, controlling only 32.2 per cent of our imports and exports.

For a while after the war our ocean shipping actually increased. Shipowners and builders would not surrender without another effort. Our registered tonnage in 1867 reached 1,515,648 and remained at or near the same figures for a decade thereafter—the total registered tonnage in 1878 was 1,589,348. But in this same period the proportion of our imports and exports carried in American vessels had steadily decreased from 33.9 to 26.3 per cent, and after 1878 both total tonnage and proportionate carrying fell together, reaching a tonnage minimum of 726,213 in 1898, and a proportionate carrying minimum of 8.2 in 1901. From 1898 onward there has been a gradual, though not constant, increase in our registered tonnage to the 1,066,288 tons of 1914. But this increase is more apparent than real, for it includes a considerable fleet of vessels employed in the long voyage coast trades like that via the Panama Canal. These vessels and others passing near or by foreign ports sail under register instead of enrolment for purposes of safety and convenience. There was virtually no real increase, up to the opening of the present European war, in the proportion of our imports and exports carried under the American flag. From 8.2 per cent in 1898 this rose to 12.1 in 1905, but fell again to 8.6 per cent in 1914. The development of American ocean shipping when this great war started was substantially where it had been sixteen years before.

The Ocean Mail Law of 1891

From 1865 to the present time, Congress has refused to adopt any vigorous and comprehensive measure for the relief of American shipping in overseas commerce, though a cautious and as it proved inadequate mail subsidy system was established in the Ocean Mail Act of March 3, 1891. As passed by the Senate this provided both subsidies for postal lines and bounties for cargo vessels, but the bounty feature was rejected and the proposed mail rates heavily reduced by Middle Western insistence in the House of Representatives. The legislation was so crippled that its authors despaired of any definite results, but even with its lowered compensation the Act of 1891 has proved to be of substantial value to the American merchant marine.

It was this legislation which made it possible for the International Navigation Company to undertake in 1895–1896 a weekly service

in American steamships from New York to England and France, the *New York* and *Philadelphia* being specially admitted to American registry for this purpose and the *St. Louis* and *St. Paul* built in the Cramp shipyard in Philadelphia. These four swift ships were of great value as auxiliary cruisers in the Spanish War. Though the company controlling these steamers has several times signified its willingness to build new ships equal to the best on the Atlantic if the United States government would enter into an agreement equivalent to that of Great Britain with the Cunard Company, no action has been had, but the weekly mail service to Europe is maintained with great regularity by the existing steamers, and this has been of much advantage to our government and our merchants throughout the present war.

The Ocean Mail Act of 1891 maintains also the Ward line of American steamers from New York to Cuba and Mexico, the Red D Line from New York to Venezuela and the Oceanic line from San Francisco to Australasia. Total expenditures under this act in the last fiscal year were $1,089,361, of which $673,998 was received by the American trans-Atlantic service. Every great maritime nation spends much more for mail subsidies than our own—even Canada two or three times as much annually.

The Merchant Marine Commission of 1904–1905

Congress in 1904 authorized a Merchant Marine Commission of five senators and five representatives, of which Senator Gallinger of New Hampshire was chairman, to make a new and thorough investigation of the ocean shipping question. This commission published its report in 1904–1905, recommending an amendment of the Ocean Mail Act of 1891 so as to provide for regular steamship services to South America, Australasia and the Orient, and the granting of subsidies to cargo vessels. A bill carrying these provisions passed the Senate, but the subsidy to cargo ships was eliminated in the House and the mail subsidy measure which the House passed was defeated by a filibuster in the Senate, conducted by two Senators who were retiring to private life. The Senate subsequently passed the ocean mail bill, but it was twice defeated in the House, though by the narrowest of majorities.

In the Congressional contests over the measures recommended by the Merchant Marine Commission, most of the opposition came from the South and Middle West—thus repeating the experience which had destroyed the American steamship services on the North Atlantic before the Civil War. But from both South and West there appeared also strong advocacy of a forward policy by individual Senators and Representatives, and the ocean mail bills were actually defeated in the House by the defection of a group of Middle Western Republicans who, though strong partisans of tariff protection for the agricultural interests of their States and section, were unwilling that National encouragement of any kind should be extended to the ocean shipping

industry of the Atlantic and Pacific seaboards. Another influence was the hostility of certain powerful European steamship corporations which had become strongly entrenched in American ocean carrying. From their headquarters in Europe and New York these foreign steamship organizations sent out earnest arguments against the subsidizing of American steamship services, and these appeals undoubtedly counted for a great deal with public men and people of the same racial origin in this country, to whom they were particularly addressed.

A Free Ship Experiment

As a part of the Panama Canal Act of August 24, 1912, Congress changed the traditional policy of the United States by offering free registry for the overseas trade to American-owned foreign-built vessels not more than five years old. This "free ship" experiment proved absolutely fruitless up to the outbreak of the war in Europe—not one foreign-built ship was at any time registered under its provisions. The reason assigned was the higher cost of operation that would have to be assumed under American laws and colors.

As an emergency measure Congress, on August 18, 1914, passed an Act amending the previous Act so that there could be admitted to American registry for purposes of foreign commerce American-owned foreign-built vessels without regard to age. At the same time the President was authorized to suspend the requirement of law that the officers of these foreign-built ships should be American citizens, and to exempt the ships in question from compliance with our inspection and measurement laws and regulations.

A considerable movement of American owners of foreign-built ships to naturalize their vessels under the new law quickly followed. The war gave a new value to the protection of the American flag. The United Fruit Company, the Standard Oil Company and the United States Steel Corporation were the principal factors to take advantage of the new legislation. Most of the foreign-built ships added to the American overseas fleet under the new policy were American-owned before the war began. There have not been many new purchases of foreign-built ships, and a very large proportion of vessels controlled by American capital, notably in the regular trans-Atlantic trade, still remain under foreign colors. The total number of ships naturalized under the Act of August 18, 1914, is 168 of a total tonnage of 574,244. Most of these were brought in in the early part of the war. Only three vessels, one of them a small yacht, were granted registry in the entire month of September, 1915.

CHAPTER XVI

FINANCE, CURRENCY AND BANKING

THE orgy of speculation fostered by a market created by the Civil War and by currency inflation came to a disastrous end in the panic of 1873 (1 and 2). Banks failed, railroads went into bankruptcy, and industry in general was sorely crippled. The effects of the panic, however, were felt most acutely by the debtor West. Western farmers who during the period of high prices had enlarged their holdings or pioneered new land on borrowed money, found themselves for the next two decades in an almost hopeless struggle against accumulated debts. While interest and principal had to be paid on loans contracted in the inflated period of war prosperity, the farmers saw the prices of their products steadily declining. The falling prices were chiefly caused by the rapid opening of the West, which glutted the market with food, and by the policy of the federal government in deflating the currency.

Against impending bankruptcy the agricultural West struggled valiantly. Its hope was to return to the dollar of the Civil War period, and to achieve this object it first urged a larger circulation of greenbacks and then the reëstablishment of free and unlimited coinage at a ratio of 16 to 1. In the pre-Civil War era it had been possible to inflate the currency by the notes of the state banks, but the National Bank Act of 1863, which itself had helped during the war to inflate the currency, effectually stopped that plan. How the farmers fought to increase the circulation of greenbacks and failed, and how they finally succeeded in 1878 in preventing further contraction has been previously treated. In the middle 'seventies the battle shifted suddenly to silver. Free and unlimited coinage of gold and silver had existed in the United States since 1792, the ratio since 1837 having been approximately 16 to 1. Under this last ratio gold had been overvalued, with the result that little silver had been brought in to be coined, and Congress, recognizing the fact in 1873, discontinued the coinage of the silver dollar. Shortly afterward the price of silver, owing in part to limitation of its coinage in Europe, began to drop, and the inflationists suddenly realized that a reëstablishment of the old

ratio of 16 to 1 would overvalue silver and draw it again into circulation. The discontinuance of the coinage of the silver dollar was now denounced as the "crime of 1873" (3), and a strong movement developed to restore silver "to its proper place in the currency."

The inflationists won a partial victory in the Bland-Allison Act of 1878 (4), which did not restore the free and unlimited coinage of silver, but did provide for the purchase each month of not more than four million dollars' worth of silver bullion to be coined into silver dollars at a ratio of 16 to 1. The Bland-Allison Act proved satisfactory to nobody. The silver-miners were disappointed because the value of silver continued to decline, the agrarian West was dissatisfied because the Act did not inflate the currency sufficiently to improve its condition, while the creditor class was paralyzed with fear that under the operation of Gresham's Law silver would drive out gold, silver would become the standard, and the value of the dollar would be less. Cleveland, who represented the gold-money men of the East, pointed out in his message of 1885 (5) the danger and the impossibility of restoring silver without international agreement, and Harrison's Secretary of the Treasury, William Windom, reviewed the situation again in 1889 (6). Notwithstanding these warnings, the pressure for silver was so great that in 1890 a new bill, the Sherman Silver Purchase Act (7) increased the amount of bullion which the Secretary of the Treasury must purchase.

The growing currency needs of the country, the treasury surplus, and other factors had enabled the nation to absorb the silver under the Bland-Allison Act with sufficient ease to maintain a gold standard. Under the Sherman Silver Purchase Act the deluge of silver was so great that gold was endangered, and Cleveland during the first months of his second term found his scanty stock of gold diminishing. A severe panic visited the nation in 1893 and Cleveland, who attributed it chiefly to the fear of a silver standard, called a special session of Congress and urged the repeal of the Sherman Silver Purchase Act (8). The causes of the panic of 1893 offer an interesting study (9). Not only Cleveland, but Andrew Carnegie, Charles S. Smith, president of the New York Chamber of Commerce, Henry Hentz, president of the New York Coffee Exchange, and many other financiers and business men attributed the panic almost wholly to the silver legislation. On the other hand, Senator William M. Stewart laid it to the repeal of the Silver Act, while George R. Gibson, financial expert and Wall Street broker, attributed it to the orgy of speculation preceding the

dénouement. Ex-Speaker Thomas B. Reed expressed a widespread sentiment when he attributed the panic to the fear of Democratic meddling with the tariff. Just as Reed was quick to lay the panic at the door of the Democrats, the Democratic Governor of Massachusetts, William E. Russell, was equally ready to blame the disaster to such Republican legislation as the high tariff and the Silver Acts. Probably all of these played their part, and in addition there was the element of the business cycle which by 1893 had reached the panic stage (10).

The campaign of 1896 was a "battle of the standards," and the victory of McKinley and the hard-money men was followed in 1900 by a law definitely making gold the standard. The question of the gold standard having been settled, the next matter of pressing importance was a revision of the banking system. The National Bank Act of 1863 with its amendments had brought order out of chaos and had served the country well in the years of reconstruction. Forty years of operation under it had, nevertheless, revealed weaknesses which were brought out after intensive study by the "Aldrich Commission" (11). The work commenced by the Republicans was carried to completion by the Democrats in the Federal Reserve Act of 1913, an Act which they believed had obviated the old defects (12) and an Act which their political opponents later pronounced good (13). Certainly the Federal Reserve system, whatever its faults, weathered the severe strain of the World War.

The cost of the World War was enormous (14) and presented new problems of taxation and government finance. Just as during the Civil War, there was a rapid expansion of both industry and agriculture, followed at the conclusion of the conflict by a severe depression (15). What the full economic effect of the war and subsequent depression will be, cannot so soon be accurately predicted, but the early tendencies closely resemble those in evidence after the Civil War. Industries which grew fat during the war years have been the first to recover, while agriculture, even after a decade, has failed to respond. Skilled and highly organized labor has been able to hold most of the gains, while unskilled and unorganized workers have had to relinquish the war-time prosperity.

An important contribution made by the United States to the winning of the World War was in the large loans made to the allied governments. The method by which these loans are to be repaid is exemplified in the debt settlement made with Great Britain in 1923 (15).

The Panic of 1873

1.[1] This panic was not the result of paper-money inflation, nor of inflated values, nor of reckless over-trading, nor of inordinate speculation. The trade and commerce of the country were in a sound and prosperous condition, and the prices of securities in Wall street were, on the average, hardly in excess of real values, and in some instances a little below them. It is true that the old trouble of tight money was beginning to be felt, and the bears on the Stock Exchange were trying to aggravate the natural monetary activity which invariably attends the flow of currency westward to move the crops early in the fall of the year, by "locking up" greenbacks and otherwise. On the 6th of September the weekly return of the New York banks, State and National, belonging to the Clearing-house, showed that their legal-tender reserve had fallen to a little less than half a million above the twenty-five per cent. which the National banks in the large cities are required by the "National Currency Act" to keep on hand against their deposits and notes; but this excited no apprehension, and hardly occasioned surprise among those aware of the drain of money for crop-moving purposes—the outward flow from Chicago and Cincinnati to what I may call the agricultural districts having been much larger than usual this season. After the four months of unparalleled and continuous stringency experienced in the previous winter and spring, when rates varying from a sixty-fourth to seven-eighth of one per cent. per diem were paid in addition to the legal seven per cent. per annum for call loans on first-class collaterals—during all of which time stocks were firmly supported—it is not to be supposed that Wall street or the general public felt much uneasiness about the loan market or the financial prospect generally. The deposits in the New York banks not only showed no falling off, but were over two hundred and twelve millions against two hundred and nine millions at the corresponding period in the previous year. The fall trade had opened auspiciously; the earnings of the railways were from five to fifteen per cent. larger than in 1872; the crops were abundant—the cotton crop, in particular, being estimated at four millions of bales—and it was supposed that the experience of stringency just referred to had placed the banks, the speculative community, and the merchants in a conservative attitude, prepared against a recurrence of dear money, and that therefore we should escape a repetition of the painful ordeal.

The element of distrust, however, aroused by the suspension of the Brooklyn Trust Company, and subsequently that of the New York Warehouse Company, in connection with the failure of Francis Skiddy & Co. and another old-established mercantile house similarly situated, had not died out when the suspension of Kenyon Cox & Co., involving

[1] Cornwallis, K., "History of the Crisis," *Lippincott's Magazine*, vol. xii (December, 1873), pp. 681-684, 687,688. Reprinted by permission of J. B. Lippincott Company. Copyright J. B. Lippincott Company, 1873.

that, also, of the Chicago and Canada Southern Railway Company, fell like a thunderbolt on Wall street. This failure derived its importance from the fact of Daniel Drew being a general partner in the house, although originally he had gone into it as a special partner with $300,000 capital, and from its being the financial agent of this new but important enterprise—a line of large extent, and involving very heavy expenditures in construction and equipment. Kenyon Cox & Co., as financial agents, and Daniel Drew individually, as a director and officer of the company, had approved its contracts and endorsed its acceptances. A large amount of the latter became due on the 13th of September, and a million and a half of them in amount would have matured within thirty days afterward; but on the morning of that date the firm formally suspended, and the joint obligations of the house and the railway company went to protest. Fortunately for the bondholders, the road had just previously been completed, although much still remained to be done to put it in the condition originally designed. Here comes the rub and the cause of the whole difficulty. The company depended for its means of construction on the sale of its bonds, as so many companies before it had done. The sale of the bonds in this country fell far short of the expectations of the financial agents, and they were equally disappointed in a market for them abroad. They were thus caught in the unpleasant position of being pledged to heavy obligations with little or no money coming in to meet them with. Failing their ability to pay these out of their own pockets, or relief in some way from the company, the result was inevitable. As, however, Daniel Drew was believed to be a man of great wealth, notwithstanding his loss of nearly a million and a half by the Northwestern "corner" in November, 1872, the failure of his house created much surprise and distrust. All new railway undertakings and the bankers identified with them were immediately regarded with suspicion, and that suspicion was fatal.

The effect on the Stock Exchange was immediate, though less visible in the decline of prices than in a reversal of the current of speculation in favor of the bears, in a disturbance of credits, and in general uneasiness. Jay Cooke & Co., who were known to be heavily involved in that colossal undertaking, the construction of the Northern Pacific Railway, and Fisk & Hatch, who had identified themselves with the Central Pacific, and subsequently the Ohio and Chesapeake Road, as financial agents, were the first to feel the shock in the shape of a run on their deposits; and on the 18th of September the former firm suspended simultaneously at its offices in New York, Philadelphia, and Washington, dragging down with it the First National Bank of Washington, of which one of the partners, Ex-Governor H. D. Cooke, was president. The downfall of this great house was regarded as little less than a national misfortune, and the prevailing distrust was so aggravated by the event that Wall street went wild over the news; and "long" stocks were thrown overboard on the Exchange without regard

to price, while the bears were emboldened to put out fresh "shorts" with a recklessness never before witnessed, the question of real values being entirely unheeded in the excitement and demoralization that prevailed. On the following morning the suspension of Fisk & Hatch —a house only second in prominence—sent another thrill of consternation through the Street. Prices on the Stock Exchange continued to fall rapidly, and during the day twenty-one additional failures occurred among stock-houses and private bankers belonging to the Board, nearly all of whom had been of good standing and accustomed to transact a large business. Early on Saturday, the 20th, the Union Trust Company, an institution with seven millions and a half of deposits, closed its doors, and the National Trust Company, with about five millions of deposits, did likewise; while the National Bank of the Commonwealth failed, apparently with little hope of resumption, mainly in consequence of having certified cheques for a private banking and stock firm to the amount of $225,000 in excess of its balance. The Bank of North America was temporarily embarrassed from a similar cause, another stock firm having similarly defaulted to no less an amount than $400,000. Here we have two conspicuous instances of the danger attending the custom of certifying brokers' cheques for large sums beyond the amount to their credit; and no greater warnings than these should be needed by the banks to decline such risks, which are neither justified by the profits resulting therefrom, nor just to their stockholders and depositors, while they are clearly opposed to the spirit of the National Banking Law.

Following the suspensions last referred to, Wall street grew still wilder than before, and in the rush to sell securities many of the brokers abandoned themselves to a state of frenzy, while rumors of fresh failures passed from lip to lip with startling rapidity.

. . . . . .

At noon the distraction was so great, and the sacrifices being made were so enormous, that universal ruin appeared to be impending; and the seeming impossibility of doing business any longer in such a condition of affairs without bringing about a state of chaos, and involving the banks in the general destruction, made itself manifest to the president and governing committee of the Stock Exchange, who yielded to the solicitations of the banks and closed the Stock Exchange at half-past twelve until further notice.

The reeling crowd paused to take breath, and felt a sense of relief in this sudden stoppage of the course of business, although accomplished by a proceeding so unexpected and revolutionary. The usual Saturday bank statement was omitted, and men left Wall street that evening only to gather in a dense crowd at the Fifth Avenue Hotel to discuss the situation.

Meanwhile, the failure of Jay Cooke & Co. in Philadelphia was quickly followed there by the suspension of several prominent private

banking and stock firms and some small ones, a panic in stocks, and a run upon the banks, involving the failure of two of their number—the Citizens' and the Union Banking Company. Advices of a few suspensions of banks and banking-houses in different parts of the country had also been received, none of much importance, but all serving to deepen the prevailing gloom, and make men fear that the worst was still to come. Representative bankers and merchants had been telegraphing to the government at Washington for some measure of relief from the moment of Jay Cooke & Co.'s suspension, but none had as yet been extended, except in the shape of an order, on Saturday, to buy ten millions of United States bonds, of which the assistant treasurer was, in consequence of the excitement, only able to buy less than two millions and a half at the equivalent of par in gold, the price to which he was limited.

The President, who had been on his way from Pittsburgh to Long Branch on Saturday, was, in company with the Secretary of the Treasury, at the Fifth Avenue Hotel on Sunday, the 21st, and gave audience to a large number of leading merchants and bankers, who urged upon him the necessity of immediate action on the part of the Treasury to save the country from further disaster, the issue of the "reserve" of forty-four millions of greenbacks as a loan to, or deposit with, the banks being the remedy generally suggested. The President, however, was firmly opposed to this, and suggested that a week of Sundays would probably afford more relief than anything else, but promised to do whatever seemed advisable within the limits of the law. On the next morning the assistant treasurer gave notice that he would continue the purchase of bonds, paying for them at the average prices of the Saturday previous. This he did until Thursday morning, when he ceased buying, twelve millions in all having been bought up to that time, and the available currency balance in the Treasury, without encroaching on the forty-four millions of unissued greenbacks, being exhausted.

. . . . . .

Having reviewed the disastrous course of this crisis up to the date of writing, I will briefly consider its causes. It may be traced remotely, in some degree, to the distrust of American railway securities in Europe which attended the reckless administration of the Erie Railway under Fisk and Gould, and which lingered after their overthrow, indisposing capitalists, as well as small investors, to have anything to do with American railways. It is true that a market still remained there for these securities, but it was a much more limited one than it probably would have been but for the Erie scandal, and within the last year or two it was entirely glutted. Financial agents found it impossible to float a new American railway loan even where the security offered was a first-mortgage bond. Thus, Jay Cooke & Co. were greatly disappointed with respect to the sale of their Northern

Pacific bonds abroad, and nearly as much so in the demand for them at home; but they were pledged to the undertaking, their solvency became dependent on its success, and they were sanguine that confidence in the great enterprise would grow with every mile of new road constructed.

Mr. Jay Cooke undoubtedly looked forward to a subsidy from Congress for carrying the mails over the new line, and in all likelihood would have obtained it but for the Crédit Mobilier *exposé*, which caused both Congress and the people to "shut down," not only on everything having the appearance of a "job," but on much besides. The ill odor into which that investigation brought the Union Pacific Railway and all who had been connected with its construction was a heavy blow at new enterprises of a similar character where government land-grants were involved; and the vexatious suit which Congress authorized against the Union Pacific Company and all concerned was another blow at confidence in the same direction.

The formation and rapid spread of the Grangers' association in the West, and its avowed design to make war upon the railway interest with a view of securing cheap transportation to the seaboard, was another disturbing element, undermining confidence in railway property. But the greatest and the immediate cause of the crisis was the over-building of railways; and hard indeed are likely to be the fortunes of the unfinished enterprises of this character arrested by its blighting influence; for capital for years to come will be very slow in finding its way into the bonds of roads to be built by the proceeds of their sale. It was a false and dangerous system—and the event has proved its unsoundness—for new companies to rely from the outset upon this source for the means of construction. It was a hand-to-mouth policy, resting upon so precarious a foundation that, in the light of experience, we can only wonder that eminent and otherwise conservative bankers should have adopted it to the extent they did, thereby not only jeopardizing their own position, but imperiling the whole financial community. About six thousand miles of new railways were constructed in the United States in 1872, of which it may be estimated that at least seven-eighths were in advance of the national requirements. Not a few of those now unfinished or just completed will, like the New York and Oswego Midland, be forced into bankruptcy, and it will be long before all the ruins left by the crisis will be cleared away. A shock has been given to the entire railway interest of the country, the full effect of which has not yet been felt; and those who expect the prices of railway securities to rule as high, for a considerable period to come, as they did before the panic, are likely to be disappointed. After all panics we have had more or less wearisome stagnation and depression, growing out of impoverishment and distrust of new ventures; and this last one will hardly prove an exception to the rule. The mercantile interest, too, will probably continue for some time to suffer in consequence of the monetary derangements

resulting from it and the want of adequate banking—or rather currency—facilities for bringing forward cotton and general produce from the West and South for shipment; and here and there houses that have so far withstood the strain will break down under it. But in a rapidly growing country, with inexhaustible resources, like this, recovery from such disasters is, fortunately, far quicker than among the less progressive nations of Europe.

An Englishman's View of the Panic of 1873

2.[1] Since the date of our last issue material additions have been made to our knowledge on this subject, and we are therefore the better able to briefly refer to the circumstances to which the failures previously recorded are attributable. Firstly, there now remains no room for doubting that the initial cause of the panic was the vastness of the speculation in railway extensions which has for some time past been in existence. As in all such cases so in the present, the prospects of the undertakings entered upon were of a remote nature; and while necessitating the conversion of large masses of floating capital into fixed capital, they rendered a considerable portion of the wealth of the country not only unremunerative, but altogether unavailable for other and immediately productive purposes, and that at a time when the necessities of the nation were assuming peculiarly urgent dimensions, owing to conditions to which we shall presently refer. The undertakings alluded to were in a large measure confined to districts in the Far West, where the advantages offered for profitably embarking in them were conspicuously wanting in the all essential item—a population to employ them. This latter element was regarded by the promoters as one of probably speedy growth so soon as the respective extensions should be completed, and it was under the impression that a similar view would be taken of the matter by the general public that various influential bankers were induced to lend their aid in floating the enormous issues of mortgage bonds made by Railway Companies which subscribed share capitals of little more than nominal amounts. After having committed themselves to heavy engagements in respect of the bonds, the bankers learned the unpleasant fact, that the enterprise they had entered upon was regarded with but little favor in Europe, where they endeavored to place those securities; and in order to protect them against the depreciation they were undergoing, nothing remained but to support the market by repurchases. Hence a large amount of those bonds were left on the hands of the different establishments. In consequence of the practically unrealisable character of these investments, the bankers were placed in a very straitened position, and were rendered altogether unequal to combating the strain of any heavy calls, especially when occurring during a period of active business, such as is presented in the Fall months.

[1] "An Englishman's View," *Bankers Magazine,* vol. xxxiii (November, 1873), pp. 993-995.

Such was the proximate cause of the recent crises. But there was a yet more important mischief at the root of these financial embarrassments; we allude, of course, to the inconvertible paper currency of the United States.

The unfortunate influence which that currency has exercised on the commercial interests of the country is of a twofold character: one essentially appertaining to inconvertible paper issues—namely, fluctuations in value, and consequent derangements of existing contracts; the other arising out of the peculiarity which in this instance distinguished its manipulation by the Government—namely, the narrow limits assigned to its amount in the face of the ever-increasing necessity for an augmented supply of legal tender, in correspondence with the expansion of the business of the country. During the progress of its War of Secession the necessities of the treasury led to overflowing issues of greenbacks. Gold being required in the country but for few purposes, a strong drain set in, and whilst the inconvertible paper currency was expanding beyond the requirements of trade, the amount of gold was constantly diminishing—the result being the rapid depreciation of the greenback, amounting at one time to 185 per cent. discount. Later on the issues ceased, and the reverse policy was pursued. The currency was gradually contracted by Government purchases in the market, and the gold premium quickly fell. This mode of contracting the amount of legal tender in the North with a view to the ultimate resumption of specie payments was accompanied by other circumstances of an almost equally effective nature. The Southern States, after the termination of the war, were in desperate straits, having lost large masses of wealth, and being almost destitute of currency. This latter want, having of necessity to be supplied out of the legal tender circulating in the North, unaided by further Government issues, an additional element of enhancement was here introduced, which, as the South progressed toward recovery, became more intense in its action, and hence the scarcity of currency which is now and has for some time past been a leading feature in American finance. That a depreciation of the greenback should coexist with a prominent dearth of currency may at first sight appear somewhat anomalous, seeing that over-issue is the cause actually assigned for the fall in the value of the paper. The explanation, however, is to be sought in the fact of there being two sources of depreciation—one being the issue of notes in excess of internal requirements for circulation, the other being the scarcity of gold for purposes of foreign trade. This latter condition is that which now prevails in the United States. While this deficiency of gold in America is a circumstance accompanied by many adverse effects, the contracted state of legal tender gives rise to results immeasurably more serious, as we have recently seen. Indeed, had it not been for the measures adopted by the Government

for relieving the intensity of the monetary stringency, which brought credit institution after credit institution toppling to the ground in quick succession, the crisis, unprecedented as it was in extent, would undoubtedly have assumed incalculably larger dimensions. Conspicuous as was the part played by overspeculation in stimulating the development of the panic, the evergrowing dearth of currency was the main cause of the collapse.

"The Crime of 1873"

3.[1] Alleged Reasons for the Law of February 12, 1873, Relating to Silver. Effects of the Law on Public and Private Rights

No adequate or satisfactory reasons for the enactment of the laws of 1873–'74, demonetizing silver, have ever been given. In the brief discussion on the bill in the House of Representatives the principal reason assigned in favor of those sections which interdicted the future coinage of the silver dollar was, that its value was 3 per cent. greater than the value of the gold dollar, and that on this account it could not circulate concurrently with the gold dollar, and that no silver was brought to the mint to be coined for circulation. There certainly could not have been any pressing necessity for legislation prohibiting a coinage which was not asked for, and if it was wise to prohibit the coinage of silver because it could not circulate, it would have been equally wise to have prohibited the coinage of gold for the same reason. Paper money, to the exclusion of both gold and silver, had been the sole circulating medium for eleven years. It could not be urged that the business of the country was subjected to any injury or inconvenience by the fluctuations in the relative value of metal which was not in use and whose coinage was not demanded. Nor can it be easily comprehended how any harm could have resulted from the retention of the option then undisputed of using either of the metals, neither of which was then in use. Such an option, always valuable,

[1] *44th Cong., 2nd Sess., Senate Report No. 703. Report and Accompanying Documents of the United States Monetary Commission Organized under Joint Resolution of August 15, 1876,* vol. i, pp. 91-93.

Editor's Note.—The following report was made by the majority of a commission appointed by Congress in 1876 and consisting of Senators J. P. Jones, L. V. Bogy, and G. S. Boutwell, Representatives R. L. Gibson, George Willard, and R. P. Bland, Mr. W. S. Groesbeck, and Professor Francis Bowen. Laughlin asserts that the commission "was packed in favor of a report for the remonetization of silver, and its conclusions have never had much weight" (J. L. Laughlin, *Bimetallism in the United States,* p. 234, N. Y., 1897). While this statement may be true, it does not appear that this commission was any more packed than the average congressional commission, and the proportion of men acquainted with the subject under consideration appears to have been as great as that generally found on such bodies. Professor Bowen and Mr. Gibson submitted a minority report.

has since become of the greatest importance, and it seems strange that it should have been given away without any consideration.

Nor could it have been a reason for the passage of the act, that in consequence of constant fluctuations in the relative value of the metals, the money standard was frequently changing from one metal to the other. Only one such change had ever occurred in the history of the country, and that was not caused by a change in the relative market value of the metals, but by a change in their legal relation by the coinage law of 1834, which, by reducing the weight of the gold dollar, undervalued silver and caused it to be exported.

The law of 1873 was not needed to prevent the Secretary of the Treasury from paying the interest or principal of the public debt in silver, because, under the option which the United States reserved when those debts were contracted, his duty to the country would require him to continue to pay in gold as long as it continued to be the cheaper metal. It cannot be supposed to have been the intention of the framers and supporters of the law to discourage silver-mining, one of the great industries of the country, or to deprive the United States of the debt-paying resource which its newly-discovered silver-mines furnished.

The object of the framers of the law could not have been to strengthen the public credit. The amount of credit which either a nation or an individual can possess, depends upon the strength and extent of the belief among lenders and capitalists that the borrower is both able and willing to meet the exact terms of his obligations. An offer to do more would subject the debtor to well-merited suspicion and distrust. He cannot improve his credit by promising to pay a larger amount of money or money of greater value, than the terms of the obligations held against him require. The sufficient, best, and only means of improving credit, public or private, is an exact performance of contracts. The debtor that insists upon all his rights and at the same time performs all his duties, is the one most confided in. Credit can be strengthened by fulfilling contracts but not by changing them; by performing old promises and not by making new ones.

Nor could the object of the framers of the law have been to advance the value of bonds already sold and in the hands of purchasers. It would be of great public importance to enhance the value of bonds which the Government was proposing to sell, but to overload the country with additional burdens for the purpose of enhancing the value of outstanding bonds, would be to subserve gratuitously and unjustly private interests at the public expense. It would be very gratifying to national pride to have the bonds of the United States now in private hands command the highest prices in the markets of the world, but it could scarcely be deemed a wise financial policy in

the present condition of the country to obtain that gratification by paying a premium for it. If, however, it were deemed advisable to enhance the value of bonds already sold, it should have been done by some plain and direct method, and in such a way that the country might know exactly what it was going to cost—as, for instance, by increasing the principal or rate of interest of outstanding bonds. It should not have been done by the indirect method of changing the medium of payment from gold or silver, at the option of the Government, to gold alone. The additional burden which that might impose, from a rise in the value of gold, is incalculable.

The wisdom of refunding the public debt before maturity, by retiring old bonds with the proceeds of the sales of new ones bearing a lower rate of interest, would be unquestionable, if the new bonds were issued on the same conditions and terms as the old ones. But if the new bonds are to run on a long time, and are to be payable only in the rapidly-appreciating metal, gold, instead of optionally in gold or silver as the old bonds are payable, it would be wiser not to refund at all. The country can better endure the present rates of interest than an indefinite increase in the value of the money in which the principal of its debts is payable.

If the gold obtained by the issue of a bond payable only in gold was used to purchase silver wherewith to pay off the 5-20 bonds, which can be paid legally and equitably in silver as well as in gold, the country would gain the present difference between the currency prices of gold and silver. Such a gain would not justify the great and unknown risk of a long-time promise of gold, but it would be worth something. But if the gold borrowed on gold bonds is to be applied directly to the payment of the 5-20 bonds, and the saving of converting it into silver for their payment is gratuitously thrown away, the operation would be, in all its aspects, a marvel of folly.

The defense most frequently made for the demonetizing act was, and is, that the silver dollar had been substantially out of circulation for twenty years. But those who make this defense forget that, until demonetized, it had always possessed all the functions of money and served as a sure protection against any considerable rise in gold. It bore a premium of only 3 per cent. in 1873, and if coin payments had been resumed then gold could not have risen more than 3 per cent. without bringing the silver dollar into immediate use. It was, when demonetized, standing guard against a rise in gold. To divest either metal of the money function because temporarily out of use would be reckless and unwise. As well might the commander of an army while a battle was raging disband and discharge his reserves because they were not engaged at the front. As well might the master of a ship cut loose and scuttle his life-boats because the sky was clear and the sea calm, or because the transfer of passengers and crew from ship to boats might cause some inconvenience.

Bland-Allison Act of 1878

4.[1] Act of February 28, 1878

To authorize the coinage of the standard silver dollar and to restore its legal tender character

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be coined, at the several mints of the United States, silver dollars of the weight of four hundred and twelve and a half grains troy of standard silver, as provided in the act of January eighteenth, eighteen hundred thirty-seven, on which shall be the devices and superscriptions provided by said act; which coins together with all silver dollars heretofore coined by the United States, of like weight and fineness, shall be a legal tender at their nominal value, for all debts and dues public and private, except where otherwise expressly stipulated in the contract. And the Secretary of the Treasury is authorized and directed to purchase, from time to time, silver bullion, at the market price thereof, not less than two million dollars worth per month, nor more than four million dollars worth per month, and cause the same to be coined monthly, as fast as so purchased, into such dollars; and a sum sufficient to carry out the foregoing provision of this act is hereby appropriated out of any money in the Treasury not otherwise appropriated. And any gain or seigniorage arising from this coinage shall be accounted for and paid into the Treasury, as provided under existing laws relative to the subsidiary coinage: *Provided*, That the amount of money at any one time invested in such silver bullion, exclusive of such resulting coin, shall not exceed five million dollars: *And provided further*, That nothing in this act shall be construed to authorize the payment in silver of certificates of deposit issued under the provisions of section two hundred and fifty-four of the Revised Statutes.

Sec. 2. That immediately after the passage of this act, the President shall invite the Governments of the countries composing the Latin Union, so-called, and of such other European nations as he may deem advisable, to join the United States in a conference to adopt a common ratio between gold and silver, for the purpose of establishing, internationally, the use of bi-metallic money, and securing fixity of relative value between those metals; such conference to be held at such place, in Europe or in the United States, at such time within six months, as may be mutually agreed upon by the Executives of the Governments joining in the same, whenever the Governments so invited, or any three of them, shall have signified their willingness to unite in the same.

The President shall, by and with the advice and consent of the Sen-

[1] *Coinage Laws of the United States 1792-1894, With an Appendix of Statistics Relating to Coins and Currency*, 4th ed., pp. 64-65. Washington, 1894. Prepared under the direction of the Committee of Finance, U. S. Senate; also 20 *U. S. Stat.*, pp. 25-26.

ate, appoint three commissioners, who shall attend such conference on behalf of the United States, and shall report the doings thereof to the President, who shall transmit the same to Congress.

Said commissioners shall each receive the sum of two thousand five hundred dollars and their reasonable expenses, to be approved by the Secretary of State; and the amount necessary to pay such compensations and expenses is hereby appropriated out of any money in the Treasury not otherwise appropriated.

SEC. 3. That any holder of the coin authorized by this act may deposit the same with the Treasurer or any assistant treasurer of the United States, in sums not less than ten dollars, and receive therefor certificates of not less than ten dollars each, corresponding with the denominations of the United States notes. The coin deposited for or representing the certificates shall be retained in the Treasury for the payment of the same on demand. Said certificates shall be receivable for customs, taxes, and all public dues, and, when so received, may be reissued.

SEC. 4. All acts and parts of acts inconsistent with the provisions of this act are hereby repealed.

Cleveland's Message on Silver—1885

5.[1] What has been thus far submitted upon this subject relates almost entirely to considerations of a home nature, unconnected with the bearing which the policies of other nations have upon the question. But it is perfectly apparent that a line of action in regard to our currency can not wisely be settled upon or persisted in, without considering the attitude on the subject of other countries with whom we maintain intercourse through commerce, trade, and travel. An acknowledgment of this fact is found in the act by virtue of which our silver is compulsorily coined. It provides that "the President shall invite the governments of the countries composing the Latin Union, so called, and of such other European nations as he may deem advisable, to join the United States in a conference to adopt a common ratio between gold and silver for the purpose of establishing internationally the use of bimetallic money and securing fixity of relative value between these metals."

This conference absolutely failed, and a similar fate has awaited all subsequent efforts in the same direction. And still we continue our coinage of silver at a ratio different from that of any other nation. The most vital part of the silver-coinage act remains inoperative and unexecuted, and without any ally or friend, we battle upon the silver field in an illogical and losing contest.

To give full effect to the design of Congress on this subject I have

[1] *Coinage Laws of the United States 1792-1894, With an Appendix Relating to Coins and Currency,* 4th ed., pp. 601-602. Washington, 1894. Message of President Cleveland, December 8, 1885.

made careful and earnest endeavor since the adjournment of the last Congress.

To this end I delegated a gentleman well instructed in fiscal science, to proceed to the financial centers in Europe, and, in conjunction to our ministers to England, France, and Germany, to obtain a full knowledge of the attitude and intent of those governments in respect of the establishment of such an international ratio as would procure free coinage of both metals at the mints of those countries and our own. By my direction our consul-general at Paris has given close attention to the proceedings of the congress of the Latin Union, in order to indicate our interest in its objects and report its action.

It may be said, in brief, as the result of these efforts, that the attitude of the leading powers remain substantially unchanged since the monetary conference in 1881, nor is it to be questioned that the views of these governments are in each instance supported by the weight of public opinion.

The steps thus taken have therefore only more fully demonstrated the uselessness of further attempts at present, to arrive at any agreement on the subject with other nations.

In the meantime we are accumulating silver coin, based upon our own peculiar ratio, to such an extent, and assuming so heavy a burden to be provided for in any international negotiations, as will render us an undesirable party to any future monetary conference of nations.

It is a significant fact that four of the five countries composing the Latin Union mentioned in our coinage act, embarrassed with their silver currency, have just completed an agreement among themselves, that no more silver shall be coined by their respective governments, and that such as has been already coined and in circulation shall be redeemed in gold by the country of its coinage. The resort to this expedient by these countries may well arrest the attention of those who suppose that we can succeed without shock or injury in the attempt to circulate upon its merits all the silver we may coin under the provisions of our silver-coinage act.

The condition in which our Treasury may be placed by a persistence in our present course, is a matter of concern to every patriotic citizen who does not desire his Government to pay in silver such of its obligations as should be paid in gold. Nor should our condition be such as to oblige us, in a prudent management of our affairs, to discontinue the calling in and payment of interest-bearing obligations, which we have the right now to discharge and thus avoid the payment of further interest thereon.

The so-called debtor class, for whose benefit the continued compulsory coinage of silver is insisted upon, are not dishonest because they are in debt; and they should not be suspected of a desire to jeopardize the financial safety of the country, in order that they may cancel their present debts by paying the same in depreciated dollars. Nor should it be forgotten that it is not the rich nor the money-lender alone

that must submit to such a readjustment, enforced by the Government and their debtors. The pittance of the widow and the orphan and the incomes of helpless beneficiaries of all kinds would be disastrously reduced. The depositors in savings banks and in other institutions which hold in trust the savings of the poor, when their little accumulations are scaled down to meet the new order of things, would, in their distress, painfully realize the delusion of the promise made to them that plentiful money would improve their condition.

We have now on hand all the silver dollars necessary to supply the present needs of the people and to satisfy those who from sentiment wish to see them in circulation; and if their coinage is suspended they can be readily obtained by all who desire them. If the need of more is at any time apparent their coinage may be renewed.

That disaster has not already overtaken us furnishes no proof that danger does not wait upon a continuation of the present silver coinage. We have been saved by the most careful management and unusual expedients, by a combination of fortunate conditions, and by a confident expectation that the course of the Government in regard to silver coinage would be speedily changed by the action of Congress.

Prosperity hesitates upon our threshold because of the dangers and uncertainties surrounding this question. Capital timidly shrinks from trade, and investors are unwilling to take the chance of the questionable shape in which their money will be returned to them, while enterprise halts at a risk against which care and sagacious management do not protect.

As a necessary consequence labor lacks employment, and suffering and distress are visited upon a portion of our fellow-citizens especially entitled to the careful consideration of those charged with the duties of legislation. No interest appeals to us so strongly for a safe and stable currency as the vast army of the unemployed.

I recommend the suspension of the compulsory coinage of silver dollars, directed by the law passed in February, 1878.

Report of the Secretary of the Treasury, William Windom, in 1889 on Silver

6.[1] Report of the Secretary of the Treasury, December 2, 1889

SILVER

The continued coinage of the silver dollar at a constantly increasing monthly quota, is a disturbing element in the otherwise excellent financial condition of the country, and a positive hindrance to any international agreement looking to the free coinage of both metals at a fixed ratio.

[1] *Coinage Laws of the United States 1792-1894, With an Appendix Relating to Coins and Currency,* 4th ed., pp. 681-682. Washington, 1894. Report of the Secretary of the Treasury, December 2, 1889.

Mandatory purchases by the Government of stated quantities of silver, and mandatory coinage of the same into full legal-tender dollars, are an unprecedented anomaly, and have proved futile, not only in restoring the value of silver, but even in staying the downward price of that metal.

Since the passage of the act of February 28, 1878, to November 1, 1889, there have been purchased 299,889,416.11 standard ounces of silver, at a cost of $286,930,633.64, from which there have been coined 343,638,001 standard silver dollars.

There were in circulation on November 1 of the present year 60,098,480 silver dollars, less than $1 per capita, the remainder, 283,539,521, being stored away in Government vaults, of which $277,319,944 were covered by outstanding certificates.

The price of silver, on March 1, 1878, was 54 15/16 pence, equal to $1.20429 per ounce fine. At this price $2,000,000 would purchase 1,660,729 ounces of fine silver, which would coin 2,147,205 standard silver dollars. At the average price of silver for the fiscal year ended June 30, 1889 (42.499 pence), equivalent to $0.93163 per ounce fine, $2,000,000 would purchase 2,146,755 fine ounces, out of which 2,775,-628 standard silver dollars could be coined.

The lower the price of silver, the greater the quantity that must be purchased, and the larger the number of silver dollars to be coined, to comply with the act of February 28, 1878.

No proper effort has been spared by the Treasury Department to put in circulation the dollars coined under this law. They have been shipped, upon demand, from the mints and subtreasuries, free of charge, to the nearest and most distant localities in the United States, only to find their way back into Treasury vaults in payment of Government dues and taxes. Surely the stock of these dollars which can perform any useful function as a circulating medium must soon be reached if it has not been already, and the further coinage and storage of them will then become a waste of public money and a burden upon the Treasury.

It is freely admitted that the predictions of many of our wisest financiers, as to when the safe limit of silver coinage would be reached, have not been fulfilled, but it is believed that the principles on which the apprehensions were based are justified by the laws of trade and finance, and by the universal experience of mankind. While many favorable causes have coöperated to postpone the evil effects which are sure to follow the excessive issue of an overvalued coin, the danger none the less exists.

The silver dollar has been maintained at par with gold, the monetary unit, mainly by the provisions of law which make it a full legal tender, and its representative, the silver certificate, receivable for customs and other dues; but the vacuum created by the retirement of national bank circulation, and the policy of the Government in not forcibly

paying out silver, but leaving its acceptance largely to the creditor, have materially aided its free circulation.

The extraordinary growth of this country in population and wealth, the unprecedented development in all kinds of business, and the unswerving confidence of the people in the good faith and financial condition of our Government, have been powerful influences in enabling us to maintain a depreciated and constantly depreciated dollar at par with our gold coins, far beyond the limit which was believed possible a few years ago.

But the fact must not be overlooked that it is only in domestic trade that this parity has been retained; in foreign trade the silver dollar possesses only a bullion value.

CAUSES OF THE DEPRECIATION OF SILVER

From the year 1717 to 1873 the ratio between gold and silver was remarkably constant, being 15.13 to 1, in the former year, and 15.92 to 1 in the latter year. During this long period of one hundred and fifty years there were slight fluctuations in the ratio, but not enough to cause any serious inconvenience. Even during the period of the immense production of gold, from 1848 to 1868, when $2,757,000,000 of gold was produced and only $813,000,000 of silver, the change in the ratio was only about 1.6 per cent.

The legislation of Germany in 1871–73, immediately following the Franco-German war, adopting the single gold standard for that Empire, withdrawing rapidly from circulation silver coins which prior to that time had formed almost exclusively the circulating medium, and throwing large quantities of silver at short and uncertain intervals upon the market, was the initial factor of the great monetary disturbance which destroyed the legal ratio between gold and silver that had existed for half a century.

France and her monetary allies, Belgium, Switzerland, Italy, and Greece, alarmed at the immense stock of German silver which was sure to flow into their open mints, immediately restricted, and soon afterward closed their mints to the coinage of full legal-tender silver pieces. This action only hastened the catastrophe.

The other nations of Europe were not slow to follow the example of Germany and France. In 1873–'75 Denmark, Norway, and Sweden adopted the single gold standard, making silver subsidiary. In 1875 Holland closed her mints to the coinage of silver. In 1876, Russia suspended the coinage of silver, except for use in the Chinese trade. In 1879 Austria-Hungary ceased to coin silver for individuals, except a trade coin known as the Levant thaler.

The result has been, that while prior to 1871 England and Portugal were the only nations of Europe which excluded silver as full legal-tender money, since the monetary disturbance of 1873–'78 not a mint of Europe has been open to the coinage of silver for individuals.

It has been charged that the act of February 12, 1873, revising the

coinage system of the United States, by failing to provide for the coinage of the silver dollar, had much to do with the disturbance in the value of silver. As a matter of fact the act of 1873 had little or no effect upon the price of silver. The United States was at that time on a paper basis. The entire number of silver dollars coined in this country from the organization of the Mint in 1792, to that date was only 8,045,838, and they had not been in circulation for over twenty-five years.

Moreover, immediately upon the passage of that act, the United States entered the market as a large purchaser of silver for subsidiary coinage, to take the place of fractional paper currency, and from 1873 to 1876 purchased for that coinage 31,603,905.87 standard ounces of silver, at a cost of $37,571,148.04.

Starting in 1878 with no stock of silver dollars, this country, standing alone of all important nations in its efforts to restore the former equilibrium between gold and silver, has, in the brief period of eleven years, added to its stock of full legal-tender money 343,638,001 dollars of a depreciated and steadily depreciating metal.

What has been the effect upon the price of silver?

The value of an ounce of fine silver, which on March 1, 1878, was $1.20, was on November 1, 1889, $0.95, a decline in eleven years of over 20 per cent.

In 1873, the date at which purchase of silver for subsidiary coinage commenced, the bullion value of the silver dollar, containing 371.25 grains of pure silver, was about 1½ cents more than the gold dollar; on March 1, 1878, the date of the commencement of purchases for the silver dollar coinage, it was $0.93, while to-day its bullion value is 72 cents in gold. In other words, there has been a fall of over 28 per cent in the value of silver as compared with gold in the last sixteen years, and of over 20 per cent since we commenced purchases in 1878.

Sherman Silver Purchase Act, 1890

7.[1] Act of July 14, 1890

Directing the purchase of silver bullion and the issue of Treasury notes thereon, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury is hereby directed to purchase, from time to time, silver bullion to the aggregate amount of four million five hundred thousand ounces, or so much thereof as may be offered in each month, at the market price thereof, not exceeding one dollar for three hundred and seventy-one and twenty-five hundredths grains of pure silver, and to issue in payment of such purchases of silver bullion Treasury notes

[1] *Coinage Laws of the United States 1792-1894, With an Appendix of Statistics Relating to Coins and Currency,* 4th ed., pp. 70-72. Washington, 1894; also 26 *U. S. Stat.,* pp. 289-290.

of the United States to be prepared by the Secretary of the Treasury, in such form and of such denominations, not less than one dollar nor more than one thousand dollars, as he may prescribe, and a sum sufficient to carry into effect the provisions of this act is hereby appropriated out of any money in the Treasury not otherwise appropriated.

SEC. 2. That the Treasury notes issued in accordance with the provisions of this act shall be redeemable on demand, in coin, at the Treasury of the United States, or at the office of any assistant treasurer of the United States, and when so redeemed may be reissued; but no greater or less amount of such notes shall be outstanding at any time than the cost of the silver and the bullion standard silver dollars coined therefrom, then held in the Treasury purchased by such notes; and such Treasury notes shall be legal-tender in payment of all debts, public and private, except where otherwise expressly stipulated in the contract, and shall be receivable for customs, taxes, and all public dues, and when so received may be reissued; and such notes, when held by any national banking association, may be counted as a part of its lawful reserve. That upon demand of the holder of any of the Treasury notes herein provided for the Secretary of the Treasury shall, under such regulations as he may prescribe, redeem such notes in gold or silver coin, at his discretion, it being the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law.

SEC. 3. That the Secretary of the Treasury shall each month coin two million ounces of the silver bullion purchased under the provisions of this act into standard silver dollars until the first day of July eighteen hundred and ninety-one, and after that time he shall coin of the silver bullion purchased under the provisions of this act as much as may be necessary to provide for the redemption of the Treasury notes herein provided for, and any gain or seigniorage arising from such coinage shall be accounted for and paid into the Treasury.

SEC. 4. That the silver bullion purchased under the provisions of this act shall be subject to the requirements of existing law and the regulations of the mint service governing the methods of determining the amount of pure silver contained, and the amount of charges or deductions, if any, to be made.

SEC. 5. That so much of the act of February twenty-eighth, eighteen hundred and seventy-eight, entitled "An act to authorize the coinage of the standard silver dollar and to restore its legal-tender character," as requires the monthly purchase and coinage of the same into silver dollars of not less than two million dollars, nor more than four million dollars' worth of silver bullion, is hereby repealed.

SEC. 6. That upon the passage of this act the balances standing with the Treasurer of the United States to the respective credits of national banks for deposits made to redeem the circulating notes of such banks, and all deposits thereafter received for like purpose, shall

be covered into the Treasury as a miscellaneous receipt, and the Treasury of the United States shall redeem from the general cash in the Treasury the circulating notes of said banks which may come into his possession subject to redemption; and upon the certificate of the Comptroller of the Currency that such notes have been received by him and that they have been destroyed and that no new notes will be issued in their place, reimbursement of their amount shall be made to the Treasurer, under such regulations as the Secretary of the Treasury may prescribe, from an appropriation hereby created, to be known as National bank notes: Redemption account, but the provisions of this act shall not apply to the deposits received under section three of the act of June twentieth, eighteen hundred and seventy-four, requiring every National bank to keep in lawful money with the Treasurer of the United States a sum equal to five percentum of its circulation, to be held and used for the redemption of its circulating notes; and the balance remaining of the deposits so covered shall, at the close of each month, be reported on the monthly public debt statement as debt of the United States bearing no interest.

Sec. 7. That this act shall take effect thirty days from and after its passage.

Cleveland's Message on Silver, 1893

8.[1] Presidential Message

To the Congress of the United States:

The existence of an alarming and extraordinary business situation, involving the welfare and prosperity of all our people, has constrained me to call together in extra session the people's representatives in Congress, to the end that through a wise and patriotic exercise of the legislative duty with which they solely are charged, present evils may be mitigated and dangers threatening the future may be averted.

Our unfortunate financial plight is not the result of untoward events, nor of conditions related to our natural resources; nor is it traceable to any of the afflictions which frequently check national growth and prosperity. With plenteous crops, with abundant promise of remunerative production and manufacture, with unusual invitation to safe investment, and with satisfactory assurance to business enterprise, suddenly financial distrust and fear have sprung up on every side. Numerous money institutions have suspended because abundant assets were not immediately available to meet the demands of frightened depositors. Surviving corporations and individuals are content to keep in hand the money they are usually anxious to loan, and those engaged in legitimate business are surprised to find that the securities they offer for loans, though heretofore satisfactory, are no

[1] *Coinage Laws of the U. S. 1792-1894, With an Appendix Relating to Coins and Currency*, 4th ed., pp. 267-269. Washington, 1894. President Cleveland's famous message to the first session of the Fifty-third Congress, Aug. 8, 1893. *Cong. Rec.* XXV, Pt. I, pp. 205-206.

longer accepted. Values supposed to be fixed are fast becoming conjectural, and loss and failure have invaded every branch of business.

I believe these things are principally chargeable to Congressional legislation touching the purchase and coinage of silver by the General Government.

This legislation is embodied in a statute passed on the 14th day of July, 1890, which was the culmination of much agitation on the subject involved, and which may be considered a truce, after a long struggle, between the advocates of free-silver coinage and those intending to be more conservative.

Undoubtedly the monthly purchases by the Government of four million and five hundred thousand ounces of silver, enforced under that statute, were regarded by those interested in silver production as a certain guaranty of its increase in price. The result, however, has been entirely different, for immediately following a spasmodic and slight rise the price of silver began to fall after the passage of the act, and has since reached the lowest point ever known. This disappointing result has led to renewed and persistent effort in the direction of free-silver coinage.

Meanwhile, not only are the evil effects of the operation of the present law constantly accumulating, but the result to which its execution must inevitably lead is becoming palpable to all who give the least heed to financial subjects.

This law provides that in payment for the four million and five hundred thousand ounces of silver bullion which the Secretary of the Treasury is commanded to purchase monthly there shall be issued Treasury notes redeemable on demand in gold or silver coin, at the discretion of the Secretary of the Treasury, and that said notes may be reissued. It is, however, declared in the act to be "the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio, or such ratio as may be provided by law." This declaration so controls the action of the Secretary of the Treasury as to prevent his exercising the discretion nominally vested in him, if by such action the parity between gold and silver may be disturbed. Manifestly a refusal by the Secretary to pay these Treasury notes in gold, if demanded, would necessarily result in their discredit and depreciation as obligations payable only in silver, and would destroy the parity between the two metals by establishing a discrimination in favor of gold.

Up to the 15th day of July, 1893, these notes had been issued in payment of silver bullion purchases to the amount of more than one hundred and forty-seven millions of dollars. While all but a very small quantity of this bullion remains uncoined and without usefulness in the Treasury, many of the notes given in its purchase have been paid in gold. This is illustrated by the statement that between the first day of May, 1892, and the 15th day of July, 1893, the notes of this kind issued in payment for silver bullion amounted to a little

more than fifty-four millions of dollars, and that during the same period about forty-nine millions of dollars were paid by the Treasury in gold for the redemption of such notes.

The policy necessarily adopted of paying these notes in gold has not spared the gold reserve of one hundred millions of dollars long ago set aside by the Government for the redemption of other notes, for this fund has already been subjected to the payment of new obligations amounting to about one hundred and fifty millions of dollars on account of silver purchases, and has as a consequence, for the first time since its creation, been encroached upon.

We have thus made the depletion of our gold easy, and have tempted other and more appreciative nations to add it to their stock. That the opportunity we have offered has not been neglected is shown by the large amounts of gold which have been recently drawn from our Treasury and exported to increase the financial strength of foreign nations. The excess of exports of gold over its imports for the year ending June 30, 1893, amounted to more than eighty-seven and a half millions of dollars.

Between the 1st day of July, 1890, and the 15th day of July, 1893, the gold coin and bullion in our Treasury decreased more than one hundred and thirty-two millions of dollars, while during the same period the silver coin and bullion in the Treasury increased more than one hundred and forty-seven millions of dollars. Unless Government bonds are to be constantly issued and sold to replenish our exhausted gold, only to be again exhausted, it is apparent that the operation of the silver-purchase law now in force leads in the direction of the entire substitution of silver for the gold in the Government Treasury, and that this must be followed by the payment of all Government obligations in depreciated silver.

At this stage gold and silver must part company and the Government must fail in its established policy to maintain the two metals on a parity with each other. Given over to the exclusive use of a currency greatly depreciated according to the standard of the commercial world, we could no longer claim a place among nations of the first class, nor could our Government claim a performance of its obligation, so far as such an obligation has been imposed upon it, to provide for the use of the people the best and safest money.

If, as many of its friends claim, silver ought to occupy a larger place in our currency and the currency of the world through general international coöperation and agreement, it is obvious that the United States will not be in a position to gain a hearing in favor of such an arrangement so long as we are willing to continue our attempt to accomplish the result single handed.

The knowledge in business circles among our own people that our Government can not make its fiat equivalent to intrinsic value, nor keep inferior money on a parity with superior money by its own independent efforts, has resulted in such a lack of confidence at home

in the stability of currency values that capital refuses its aid to new enterprises while millions are actually withdrawn from the channels of trade and commerce to become idle and unproductive in the hands of timid owners. Foreign investors equally alert not only decline to purchase American securities but make haste to sacrifice those which they already have.

It does not meet the situation to say that apprehension in regard to the future of our finances is groundless and that there is no reason for lack of confidence in the purposes or power of the Government in the premises. The very existence of this apprehension and lack of confidence, however caused, is a menace which ought not for a moment to be disregarded. Possibly if the undertaking we have in hand were the maintenance of a specific known quantity of silver at a parity with gold, our ability to do so might be estimated and gauged, and perhaps in view of our unparalleled growth and resources might be favorably passed upon. But when our avowed endeavor is to maintain such parity in regard to an amount of silver increasing at the rate of fifty millions of dollars yearly, with no fixed termination to such increase, it can hardly be said that a problem is presented whose solution is free from doubt.

The people of the United States are entitled to a sound and stable currency and to money recognized as such on every exchange and in every market of the world. Their Government has no right to injure them by financial experiments opposed to the policy and practice of other civilized states, nor is it justified in permitting an exaggerated and unreasonable reliance on our national strength and ability to jeopardize the soundness of the people's money.

This matter rises above the plane of party politics. It vitally concerns every business and calling and enters every household in the land. There is one important aspect of the subject which especially should never be overlooked. At times like the present, when the evils of unsound finance threaten us, the speculator may anticipate a harvest gathered from the misfortune of others, the capitalist may protect himself by hoarding or may even find profit in the fluctuation of values; but the wage-earner—the first to be injured by a depreciated currency and the last to receive the benefit of its correction—is practically defenseless. He relies for work upon the ventures of confident and contented capital. This failing him, his condition is without alleviation, for he can neither prey on the misfortunes of others nor hoard his labor. One of the greatest statesmen our country has known, speaking more than fifty years ago when a derangement of the currency had caused commercial distress, said: "The very man of all others who has the deepest interest in a sound currency and who suffers most by mischievous legislation in money matters, is the man who earns his daily bread by his daily toil."

These words are as pertinent now as on the day they were uttered, and ought to impressively remind us that a failure in the discharge

of our duty at this time must especially injure those of our countrymen who labor and who, because of their number and condition, are entitled to the most watchful care of their Government.

It is of the utmost importance that such relief as Congress can afford in the existing situation be afforded at once. The maxim "he gives twice who gives quickly" is directly applicable. It may be true that the embarrassments from which the business of the country is suffering arise as much from evils apprehended as from those actually existing. We may hope, too, that calm counsels will prevail and that neither the capitalists nor the wage-earners will give way to unreasoning panic and sacrifice their property or their interests under the influence of exaggerated fears. Nevertheless, every day's delay in removing one of the plain and principal causes of the present state of things enlarges the mischief already done and increases the responsibility of the Government for its existence. Whatever else the people have a right to expect from Congress, they may certainly demand that legislation condemned by the ordeal of three years' disastrous experience shall be removed from the statute books as soon as their representatives can legitimately deal with it.

It was my purpose to summon Congress in special session early in the coming September that we might enter promptly upon the work of the tariff reform, which the true interests of the country clearly demand, which so large a majority of the people as shown by their suffrages, desire and expect, and to the accomplishment of which every effort of the present Administration is pledged. But while tariff reform has lost nothing of its immediate and permanent importance, and must in the near future engage the attention of Congress, it has seemed to me that the financial condition of the country should at once, and before all other subjects, be considered by your honorable body.

I earnestly recommend the prompt repeal of the provisions of the act passed July 14, 1890, authorizing the purchase of silver bullion, and that other legislative action may put beyond all doubt or mistake the intention and the ability of the Government to fulfill its pecuniary obligations in money universally recognized by all civilized countries.

GROVER CLEVELAND

Executive Mansion, August 8, 1893

Contradictory Reasons Advanced for the Panic of 1893

9. G. R. GIBSON [1]

Within twelve months, Wall Street, the financial center of this country, and its inner core, the stock market, have been agitated and upset by a series of events.

[1] Gibson, George R., "The Financial Excitement and Its Causes," *Forum*, vol. xv, pp. 354-357, September, 1893.

EDITOR'S NOTE.—It has been customary in recent discussions to attribute the panic of 1893 almost exclusively to the fear of silver. Men of affairs living at the time,

First in the spring of 1892 came excessive floods and crop-damage to wheat and cotton, greatly reducing their area and condition; then in July and August the Homestead and Buffalo strikes and riots, by which organized labor sought to dictate to corporate capital; then the spectre of cholera stalked across the scene; next came the political campaign, which usually checks business; then the result of the election, which meant a reversal of the tariff policy of the Government. Then came the figures of an adverse balance of trade, due chiefly to Europe's poverty and our own prosperity, then the scandalous collapse of the Whiskey Trust, the confession of insolvency, through reckless management, of the Reading railway within two months after the issuance of a favorable balance-sheet and the almost fraudulent declaration of dividends on three classes of income-bonds, payable only if earned; then the exhibition of irresolution in the Treasury, corrected a few days later only by the President himself; and finally the bursting of the disgraceful speculative Cordage Company bubble and several failures, but only among brokers identified with audacious manipulation.

Is not this a chapter of horrors enough to give a nightmare to the financiers who have lived through these experiences? Do we need to add the fear that still haunts the timid mind that the cholera may yet come to destroy all the favorable expectations of the World's Fair? Do these events which have dealt the Stock Exchanges blow after blow not sufficiently account for the low level of prices which prevails there?

Individuals are imprudent and foolhardy under all currency systems, as the history of panics shows, and in some instances, unfortunately, they are practically dishonest. Such individuals, while digging pits for themselves, often undermine confidence and bring down the innocent and guilty in a common crash. The cause of the acute form of semi-panic that has characterized Wall Street this spring is not the silver legislation. Its immediate cause was the reckless and daring conspiracy of a group of speculators who combined to work up to fictitious heights the shares of certain industrial corporations, of whose real value the public knew nothing except from hearsay, by the aid of excessive dividends, declared either from wild imprudence or gross dishonesty, and by the arts of "cross orders" and manipulation in all its most glaring and obnoxious forms.

Andrew Carnegie[1]

First, then, what has happened? Let me take you back some years. The country never was so prosperous as during the decade between

however, did not always interpret the situation so simply, and the following excerpts from magazine articles of the time are given to illustrate the diverse explanations advanced to explain the panic. Consult that part of the Introduction to this chapter which refers to the following excerpts.

[1] Carnegie, Andrew, "A Word to Wage Earners," *North American Review*, clvii, pp. 354-357, September, 1893.

1880 and 1890. Labor was never so fully employed, wages so high, or the necessaries of life so cheap; the masses never earned and saved so much; never was the proportion of the combined earnings of capital and labor given to and received by labor so large, and the proportion left to capital so small. Never was the foreign commerce of the country nor its infinitely more important home commerce so great. It is probable that our successors in many future decades are to look back to the past decade as the golden age of the Republic, as far as material prosperity is concerned.

What a contrast to this picture the position of our country presents to-day. It is doubtful if a more disastrous financial cyclone ever blasted a country to such an extent in so short a time. We look now upon the mines, not only of silver, which employ comparatively few men, but upon the much vaster iron mines almost completely stopped and the coal mines greatly restricted in product. We see the woollen and cotton mills stop in New England; the blast furnaces closed throughout the South; banks and business firms failing to an extent before unknown, and hundreds of thousands of workmen idle, when before every one was employed. And while a few thousands engaged in business suffer, the sufferers among the wage-earning classes are already numbered by hundreds of thousands. The country has fallen from the apex of prosperity to the depths of industrial depression. Adversity has taken the place of prosperity; stagnation in business has succeeded activity; confidence has given place to distrust; and, as is always the case when business is disturbed, the chief part of the loss or suffering is falling, and must fall, upon the workingmen —upon the poor millions and not upon the rich few. The millionaire will cease to make money for a time, or perhaps lose some which he can well afford to spare. The business man, as a rule, will certainly lose part of his capital, but few in these classes will be beggared. Upon the millions of poor people alone will come deprivation, restricted comforts, poorer food and clothing; and upon many absolute want.

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The reason why disaster has come is this. Up to the year 1878 gold was our only metallic currency, silver was used only for small change, and was legal tender in sums not exceeding five dollars. In 1878, however, a bill was passed requiring the Government to buy not less than two millions of dollars' worth per month of silver, and to coin it into money, thus adding to our gold currency, currency in silver, from which before we were entirely free.

"This, the dire spring of all our woes."

The Government has ever since been trying, and trying in vain, to give a value to silver which it does not possess. It has gone exactly contrary to all the other leading governments of the world. Keen observers of affairs everywhere saw that silver was being produced

in larger quantities and more cheaply than ever, owing to the discovery of new mines and to improved methods of mining and refining; and, therefore, that it was falling, and bound to fall in value. One government after another stopped buying and coining silver to use for money. It is nearly fifteen years since all European governments have ceased to coin silver. Our Government alone (Mexico excepted) has persisted in buying millions of dollars' worth of silver every month, and for the last two years it has bought more silver than all the mines of the country have produced; and has issued notes for this silver which it has so far redeemed in gold. When the United States began to buy and coin silver there was not a mint in Europe which was not closed against it. Every student of finance knew that if it continued to buy silver the time must come when it would be impossible for the Government to redeem all its notes in gold, because the country was losing its gold rapidly and adding every month to its notes. It was only a question of time, therefore, when the most far-seeing and prudent among financial and business men, both at home and abroad, would begin to take measures to secure themselves against the possible failure of the Government to pay its notes in gold, for if these ever were paid in silver only, this would mean a loss of probably one-half of all their funds, so a few investors at home first began to make all contracts in gold and to exchange the bonds they had bought, which were payable in lawful money, for bonds that were expressly payable in gold. People abroad who had invested their money in our country did the same, while others decided that it was safest to withdraw all their money from our country, and so the whole world looked on in surprise, and foreign governments with joy, at the attempt of our Government to bolster up silver, and quietly began to drain our country of its gold, leaving us the silver of which we seemed so fond. We might accept silver if we chose, but gold was the only metal for them. Since our silver legislation of 1878 began to operate, as it was bound sooner or later to operate, we have exported in five years and five months, from 1888 to 1893, three hundred and twenty-eight millions of dollars in gold, and received only one hundred and fifteen millions. And you have to note that gold has been taken from us faster and faster as we added to our stock of silver; thus, in 1890, we lost only twenty-four millions; in 1891, seventy-nine millions; in 1892, seventy-six millions; and in five months of this year no less than sixty-three millions have been taken from us.

Charles Stewart Smith[1]

I deem it proper at the outset to state that the recent panic was not the result of over-trading, undue speculation or the violation of business principles throughout the country. In my judgment it is to be attributed to unwise legislation with respect to the silver ques-

[1] Smith, Charles S., "The Business Outlook," *North American Review*, clvii (October, 1893), p. 386.

tion; it will be known in history as "the Silver Panic," and will constitute a reproach and an accusation against the common sense, if not the common honesty, of our legislators who are responsible for our present monetary laws. Observers abroad and clear-headed financiers at home predicted with absolute certainty the disasters which have overtaken us, and no great prophetic vision was required to anticipate the conditions which have so recently prevailed throughout the United States.

Henry Hentz[1]

I attribute our financial troubles almost wholly to the Sherman silver purchase law. From information received from reliable sources I am satisfied that the fear of a change in the tariff has had little or nothing to do with the failures that have taken place. It may have some effect later on, when Congress takes up the matter in earnest. The fact that the situation has improved since the House passed the Wilson silver bill, and the Committee on Ways and Means are now giving a hearing to the different interests that are affected by the tariff, conclusively shows that the panic was not caused by fear of tariff legislation.

Senator William M. Stewart[2]

The financial disaster did not come from the operation of the act of 1890. The financial distress of the last three months is the result of the effort of the present administration and its London and New York aiders and abettors to repeal the purchasing clause of the Sherman act and reduce the United States to the single gold standard.

An attempt to repeal that clause was made in February last while General Harrison was still President, and was defeated in the Senate by a majority of 19.

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After the inauguration of Mr. Cleveland the gold press demanded an immediate call of an extra session of Congress to repeal the Sherman act. The President and his advisers realized that there was a majority in each House of Congress against such repeal. They determined that coercive measures must first be employed; that Members of Congress must be made to feel the power of patronage and money. Frequent interviews appeared in the daily press between the Secretary of the Treasury and the bankers of Wall Street, and between the President of the United States and faithful friends and reporters, looking to a financial squeeze to bring pressure upon Congress. Ex-Senator Bayard, of Delaware, a distinguished monometallist, who shares the unenviable distinction with the Senator from Ohio (Mr.

[1] Hentz, Henry, Symposium, "The Business Outlook," *North American Review,* clvii (October, 1893), p. 398.

[2] Stewart, Senator William M., "Misrepresentation in the Senate," *North American Review,* clvii, pp. 316-317.

Sherman) of being on the committee which planned and secured the demonetization of silver in 1873, was sent as Ambassador to the monometallic court of St. James's, where active operations were necessary to intensify the panic and stampede Congress.

The Gladstone administration suspended coinage in India. The principal reason assigned for such suspension by the Herschell committee was the anticipation of an early repeal of the Sherman law. The language of the report of that committee plainly indicates that the British cabinet was in possession of official information that the Sherman act would be repealed. On the suspension of silver coinage in India the price of silver declined about twenty cents an ounce.

The banks of Denver, Colo., were doing business with the smelters of silver ore, and dependent upon the purchase by the Government under the mandatory Sherman act of the silver bullion produced by the smelters. The bullion was offered to the Secretary of the Treasury to the extent of 6,068,000 ounces in the month of July at lower prices than ever before prevailed in the history of the world; but the Secretary refused to purchase the four and a half million ounces as required by law, and only purchased during the month of July 2,392,-618.77 ounces, nearly all of which was bought in the latter part of the month. The banks of Denver, unable to get money on account of the refusal of the Secretary to execute the law, failed. The West had an "object lesson," and the panic was inaugurated in earnest. To intensify the panic, the President issued an inflammatory call for an extra session of Congress to repeal the purchasing clause of the Sherman act which he alleged was the cause of the trouble which had been brought about by the money powers of London and New York coöperating with the Executive of the United States.

Governor Russell of Massachusetts [1]

Unfortunately the issue is complicated by the political situation. The Democratic party is in power, but Republican laws and policy are still in force. There has not been time yet to change or repeal these with the exception of a single measure, and that one only by a special session of a Democratic Congress convened by a Democratic President.

All other laws remain. The Republican policy upon tariff and finance, with this exception, is still the law of the land. Our revenue is still raised under Republican taxation, and our money spent under Republican appropriations. If mills are closed and men idle, it is well to remember that the McKinley Bill and high protection are still in full force; if the cause of sound money is threatened, that the Sherman law has only just been repealed; if there is an increasing deficit in the Treasury approaching fifty million dollars a year, that the Democratic party left in March, 1889, a surplus of over one

[1] Russell, William E., "Political Causes of Business Depression," *North American Review,* clvii (December, 1893), p. 642.

hundred millions, and that our income and expenses since have been determined by Republican laws.

There has been a change only of the party in power with no fair chance yet to make the people's will and Democratic policy the law of the land. As measures are more important than men, so the acts and laws of a party have the larger share of responsibility for results dependent upon political control. A Democratic administration with Republican laws to enforce is not responsible for those laws, nor for their evil results, until at least it has had opportunity to change them.

Thomas B. Reed [1]

With all this before the country, what in the world would a sensible man expect? Would he expect that business would run smoothly with its finances in the hands of men who have adopted every vagary of currency that has ever been promulgated? Would he expect that manufacturers would calmly go on manufacturing goods when changes in the tariff might convert the storehouse of product into a magazine of disaster? Would he suppose that manufacturers would put stock into their mills to be worked into cloth which could be undersold? Would not the sensible man do just what he is doing—curtail his manufactures and diminish his business? If he would not of himself, the banks would soon teach him the lesson. Diminished credits and the hoarding of bank notes by scared citizens would soon cut off his resources.

Do not let this picture be accused of exaggeration or of party bias. Let it be admitted that the Democratic party in office will be better than its declarations out of office. That could easily be true. Everybody knows that responsibility steadies even the most flighty, that a Secretary who voted for free coinage in the Senate may be a sound money man in the Treasury Department, and that the legislator is always wiser than the stump orator. Supposing the Democratic party cannot achieve free trade, and that there are even suspicions that it never meant to do so, even though that doctrine be in the platform with all the power of the most definite human language; platforms are not statutes, and the people still rule, even after election. Make your utmost deduction for the conservatism of office and responsibility; make it also in due measure for the lying nature of platforms and you yet have the most powerful residuum of distrust ever left to harass a nation.

Perhaps not one-half of the industries of the nation will be attacked. Granted. But which half? and how much? There is the secret of the condition of business affairs to-day. No human being, not even the Democratic party itself, can tell what that party will do; hence, all that business can do is to call a halt. I am aware that any allusion

[1] Reed, Ex-Speaker Thomas B., "The Political Situation," *North American Review*, vol. clvii (September, 1893), pp. 259-260.

to the tariff, or suggestion that the attitude of the victors towards the tariff is one of the causes at the bottom of our present distress, will seem, to the unthinking, to show a disposition to call up party questions, and to renew an old and threadbare discussion. But such is by no means the fact. Whether free trade be right or wrong, whether protection be a sound system or a base and inexcusable tax on the poor, makes no difference whatever as to the bearing of the question upon our present condition. The Democratic party has come into power under solemn pledge, put into the amplest language, to abolish protection. Now, it so happens that the greater part of the business of this country for the last thirty years has been based upon protection. Men have differed as to the degree of protection, acts and amendments have varied the schedules, but protection has been the ruling thought and the ruling practice in this country for thirty years.

The Democratic party has, by a large majority, in convention assembled rejected any compromise, and ordered the system of protection to the rear. The house we have lived in for thirty years has been ordered to be demolished. Is there any wonder that there is commotion, that everybody is moving out his furniture and having his baggage strapped? To add to the confusion, the President announced in his inaugural that due attack would also be made on those aggregations of capital which the progress of modern business has united under the influence of competition and the demand for cheaper prices. Whether such an announcement was a patriotic one or not is not, in the least, in question. If a system is in the process of establishment by the natural course of business, and all kinds of business are adopting it, such a declaration by the Executive, even if made without full consideration or definite purpose, could produce only one result. Another element of distrust was thereby visibly introduced.

Business Cycles

10.[1] The Nature of Business Cycles

Fifteen times within the past one hundred and ten years, American business has passed through a "crisis." The list of crisis years (1812, 1818, 1825, 1837, 1847, 1857, 1873, 1884, 1890, 1893, 1903, 1907, 1910, 1913, 1920) shows that the periods between successive crises have varied considerably in length. Further, no two crises have been precisely alike and the differences between some crises have been more conspicuous than the similarities. It is not surprising, therefore, that business men long thought of crises as "abnormal" events brought on by some foolish blunder made by the public or the government. On this view each crisis has a special cause which is often summed up by the newspapers in a picturesque phrase "the Jay Cooke panic" of

[1] *Business Cycles and Unemployment. Report and Recommendations of a Committee of the President's Conference on Unemployment Including an Investigation Made Under the Auspices of the National Bureau of Economic Research* (N. Y., 1923). From Chapter I, "Business Cycles," by Wesley C. Mitchell, 5-7.

1873, "the railroad panic" of 1884, "the Cleveland panic" of 1893, "the rich man's panic" of 1903, "the Roosevelt panic" of 1907.

Longer experience, wider knowledge of business in other countries, and better statistical data have gradually discredited the view that crises are "abnormal" events, each due to a special cause. The modern view is that crises are but one feature of recurrent "business cycles." Instead of a "normal" state of business interrupted by occasional crises, men look for a continually changing state of business—continually changing in a fairly regular way. A crisis is expected to be followed by a depression, the depression by a revival, the revival by prosperity, and prosperity by a new crisis. Cycles of this sort can be traced for at least one century in America, perhaps for two centuries in the Netherlands, England, and France, and for shorter periods in Austria, Germany, Italy, Spain, and the Scandinavian countries. Within a generation or two similar cycles have begun to run their courses in Canada and Australia, South America, Russia, British India, and Japan.

At present it is less likely that the existence of business cycles will be denied than that their regularity will be exaggerated. In fact, successive cycles differ not only in length, but also in violence, and in the relative prominence of their various manifestations. Sometimes the crisis is a mild recession of business activity as in 1910 and 1913; sometimes it degenerates into a panic as in 1873, 1893, and 1907. Sometimes the depression is interrupted by an abortive revival as in 1895, sometimes it is intensified by financial pressure as in 1896 and 1914. Sometimes the depression is brief and severe as in 1908, sometimes it is brief and mild as in 1911, sometimes it is both long and severe as in 1874–1878. Revivals usually develop into full-fledged prosperity, but there are exceptions like that of 1895. Prosperity may reach a high pitch as in 1906–1907 and 1916–1917, or may remain moderate until overtaken by a mild crisis as in 1913, or by a severe panic as in 1893.

These differences among business cycles arise from the fact that the business situation at any given moment is the net resultant of a complex of forces among which the rhythm of business activity is only one. Harvest conditions, domestic politics, changes in monetary and banking systems, international relations, the making of war or of peace, the discovery of new industrial methods or resources, and a thousand other matters all affect the prospects of profits favorably or adversely and therefore tend to quicken or to slacken the pace of business. The fact that the rhythm of business activity can be traced in the net resultants produced by these many factors argues that it is one of the most constantly acting, and probably one of the most powerful, factors among them.

To give a sketch of the business cycle which will be applicable to future cases, it is necessary of course to put aside the complicating effects of the various special conditions which at any given time are

influencing profits, and to concentrate attention upon the tendency of the modern business system to develop alternate periods of activity and sluggishness.

Even when the problem is simplified in this way, it remains exceedingly complex. To keep from getting lost in a maze of complications, it is necessary to follow constantly the chief clue to business transactions. Every business establishment is supposed to aim primarily at making money. When the prospects of profits improve, business becomes more active. When these prospects grow darker, business becomes dull. Everything from rainfall to politics which affects business exerts its influence by affecting this crucial factor—the prospects of profits. The profits clue will not only prevent one from going astray, but will also enable one to thread the business maze slowly, if he chooses, taking time to examine all details, or to traverse the maze rapidly with an eye only for the conspicuous features. Needless to say, in this chapter we shall have to move rapidly.[1]

Report of the Aldrich Commission

11.[2] We have made a thorough study of the defects of our banking system, which were largely responsible for these disasters and have sought to provide effective remedies for these and other defects, in the legislation we propose.

The principal defects in our banking system we believe may be summarized as follows:

1. We have no provision for the concentration of the cash reserves of the banks and for their mobilization and use wherever needed in times of trouble. Experience has shown that the scattered cash reserves of our banks are inadequate for purposes of assistance or defense at such times.

2. Antiquated Federal and State laws restrict the use of bank reserves and prohibit the lending power of banks at times when, in the presence of unusual demands, reserves should be freely used and credit liberally extended to all deserving customers.

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[1] The literature of business cycles is large and rather controversial. The differences among recent writers, however, are mainly differences in the distribution of emphasis. Among the best of the recent books upon the subject are the following: Aftalion, A., *Les Crises Periodiques de Surproduction,* 2 vols., Paris, 1913; Hansen, A. H., *Cycles of Prosperity and Depression,* Madison, Wisconsin, 1921; Hawtrey, R. G., *Good and Bad Trade,* London, 1913; Hull, G. H., *Industrial Depressions,* New York, 1911; Mitchell, W. C., *Business Cycles,* Berkeley, California, 1913; Moore, H. L., *Economic Cycles,* New York, 1914; Robertson, D. H., *A Study of Industrial Fluctuation,* London, 1915.

[2] *Report of the National Monetary Commission,* pp. 6-9. Washington, 1912.

Editor's Note.—The Monetary Commission, authorized by Congress in 1908 and headed by Senator Nelson W. Aldrich of Rhode Island, devoted three years to a study of American banking, published numerous valuable studies, and submitted recommendations and a plan for revamping the national banking system. Certain of these suggestions were followed in the Federal Reserve Act of 1914. Consult D. R. Dewey, *Financial History of the United States* (8th ed., 1922), pp. 482-483, and J. L. Laughlin, *Banking Progress* (1920), chap. viii.

3. Our banks also lack adequate means available for use at any time to replenish their reserves or increase their loaning powers when necessary to meet normal or unusual demands.

4. Of our various forms of currency the bank-note issue is the only one which we might expect to respond to the changing needs of business by automatic expansion and contraction, but this issue is deprived of all such qualities by the fact that its volume is largely dependent upon the amount and price of United States bonds.

5. We lack means to insure such effective coöperation on the part of banks as is necessary to protect their own and the public interests in times of stress or crisis. There is no coöperation of any kind among banks outside the clearing-house cities. While clearing-house organizations of banks have been able to render valuable services within a limited sphere for local communities, the lack of means to secure their coöperation or affiliation in broader fields makes it impossible to use these or similar local agencies to prevent panics or avert calamitous disturbances affecting the country at large. These organizations have, in fact, never been able to prevent the suspension of cash payments by financial institutions in their own localities in cases of emergency.

6. We have no effective agency covering the entire country which affords necessary facilities for making domestic exchanges between different localities and sections, or which can prevent disastrous disruption of all such exchanges in times of serious trouble.

7. We have no instrumentality that can deal effectively with the broad questions which, from an international standpoint, affect the credit and status of the United States as one of the great financial powers of the world. In times of threatened trouble or of actual panic these questions, which involve the course of foreign exchange and the international movements of gold, are even more important to us from a national than from an international standpoint.

8. The lack of commercial paper of an established standard, issued for agricultural, industrial, and commercial purposes, available for investments by banks, leads to an unhealthy congestion of loanable funds in great centers and hinders the development of the productive forces of the country.

9. The narrow character of our discount market, with its limited range of safe and profitable investments for banks, results in sending the surplus money of all sections, in excess of reserves and local demands, to New York, where it is usually loaned out on call on Stock Exchange securities, tending to promote dangerous speculation and inevitably leading to injurious disturbances in reserves. This concentration of surplus money and available funds in New York imposes upon the managers of the banks of that city the vast responsibilities which are inherent in the control of a large proportion of the banking resources of the country.

10. The absence of a broad discount market in our system, taken

together with the restrictive treatment of reserves, creates at times when serious financial disturbances are anticipated a condition of dependence on the part of individual banks throughout the country, and at the same time places the farmers and others engaged in productive industries at a great disadvantage in securing the credit they require for the growth, retention, and distribution of their products.

11. There is a marked lack of equality in credit facilities between different sections of the country, reflected in less favored communities, in retarded development, and great disparity in rates of discount.

12. Our system lacks an agency whose influence can be made effective in securing greater uniformity, steadiness, and reasonableness of rates of discount in all parts of the country.

13. We have no effective agency that can surely provide adequate banking facilities for different regions promptly and on reasonable terms to meet the ordinary or unusual demands for credit or currency necessary for moving crops or for other legitimate purposes.

14. We have no power to enforce the adoption of uniform standards with regard to capital, reserves, examinations, and the character and publicity of reports of all banks in the different sections of the country.

15. We have no American banking institutions in foreign countries. The organization of such banks is necessary for the development of our foreign trade.

16. The provision that national banks shall not make loans upon real estate restricts their power to serve farmers and other borrowers in rural communities.

17. The provision of law under which the Government acts as custodian of its own funds results in irregular withdrawals of money from circulation and bank reserves in periods of excessive Government revenues, and in the return of these funds into circulation only in periods of deficient revenues. Recent efforts to modify the Independent Treasury system by a partial distribution of the public moneys among national banks have resulted, it is charged, in discrimination and favoritism in the treatment of different banks.

Report of Comptroller of the Currency, 1915, on the Federal Reserve System

12.[1] Banks Could Not Always Rely on Availability of Their Balances with Reserve Agents

Experience had shown that the system of accumulating and impounding reserves for the national banks of the reserve cities, as well as those of the country banks, in the three "central reserve" cities of New York, Chicago, and St. Louis worked badly. The funds of the banks throughout the country were stored up and concentrated in

[1] *Annual Report of the Comptroller of the Currency to the First Session of the Sixty-Fourth Congress of the United States, December 6, 1915,* vol. i, pp. 2-4. Washington, 1916.

these three cities. The banks in these cities, especially in New York, had become accustomed to lending largely in Wall Street on demand, on bond and stock collateral, the reserve balances which these banks held for other banks, and upon which they usually paid the depositing banks 2 per cent per annum interest. Periodically, or in the crop-moving season, when the country banks had to withdraw their deposits from the centers, the national banks in the large cities would call in these loans on bonds and stocks, money rates would advance, and stocks decline. This process went on from year to year.

When there was sudden strain and need, as in 1893 and 1907, the banks throughout the country having or anticipating a demand from their customers for money would seek to draw in their balances from New York and the other large cities. The New York banks, however, at these times unable to meet the demands upon them, would suspend currency shipments and resort to the usual remedy of issuing clearing-house certificates for protection until normal conditions should be resumed, and the banks in other large cities thereupon generally would be forced to follow the lead set by the New York banks, would hold onto the money of their correspondents, and issue clearing-house certificates, while currency was being bought and sold at a premium of 2 to 5 per cent.

Aims of Federal Reserve System

The Federal Reserve System has been designed to correct these and other evil and dangerous conditions and to furnish to the banks and to the people of the country new and additional banking and financial facilities by providing:

First. A currency or circulating medium which will not only pass without question at its face value in every part of the country, but which will expand when necessary to meet legitimate demands of increasing business, and which will also contract at the proper time when no longer required and when its continuance in circulation would threaten or promote inflation.

Second. An improved system for the management and handling of the bank reserves, whereby these reserves become readily and easily available to meet demands for increased money and credit and where the proper utilization of that portion of the bank reserves not held in the vaults of the respective individual banks may be made available as a means of relief and to prevent the financial crisis or market panics from which the country has suffered so often when the country banks have tried to bring home their reserves to meet the wants of their customers.

Third. A clearing or collection system by which the checks on national banks and other banks which are members of the Federal Reserve System, drawn on solvent banks by solvent drawers, may be cashed or collected at par in every part of the country, without the

burden and expense of the exchange and collection charges which have been a material expense and a serious drawback to business operations.

Fourth. The Federal reserve banks furnish through their capital, their large deposits, and their note-issuing power the facilities by which all members of the system, in any emergency, may rediscount their eligible paper and obtain funds to meet any sudden or unexpected demands. These reserve banks also provide their member banks in ordinary times with money and credit to enable them to meet the legitimate demands of customers for increased accommodations when the member banks themselves have not the needed funds.

Fifth. The Federal Reserve System, by providing a source from which all well-managed banks at all times may secure funds to meet any emergency, makes unnecessary the carrying by member banks of the reserves formerly required for national banks. By the reduction in reserve requirements provided by the act the loanable funds of the national banks upon the inauguration of the Federal Reserve System were increased immediately, through the release of reserves, by an amount figured at considerably more than $400,000,000.

The other direct advantages provided by the Federal reserve act are (a) the opportunity given to national banks under certain conditions to lend money on improved, unincumbered farm property; (b) the power conferred on national banks to establish branches in foreign countries; (c) the establishment and authorization of bank acceptances; (d) the provisions for open-market operations by Federal reserve banks; and, finally (e) the adoption of the new method for the compensation of bank examiners, which insures a more thorough and systematic examination of national banks than was possible under the antiquated fee system.

Financial Crisis of 1914

The Federal Reserve Board was organized August 12, 1914, ten days after the outbreak of the European war, but the Federal reserve banks were not opened for business until November 16, 1914. The commerce, industry, and business of the entire world were disturbed as never before. "Moratoria" had been declared in nearly all foreign countries. Outside sources of relief were shut off and the banking situation was greatly demoralized. As a result, however, of the instant and energetic action of the Secretary of the Treasury, August 2, 1914, authorizing and directing the issue of several hundred million dollars of "emergency currency" under the provisions of the emergency currency law of May 30, 1908, as amended by the Federal reserve act, the banks in all parts of this country—north, east, south, and west—were supplied promptly with all the currency they needed, which enabled them to maintain currency payments throughout the entire country, a record they were unable to make in 1893 and in 1907, and in previous crises infinitely less far-reaching than that which confronted us a year ago.

The Federal Reserve After Twelve Years

13.[1] Extension of the Federal Reserve Bank Charters

The Federal reserve system has been in operation 12 years. The original charters for the Federal reserve banks were for a period of 20 years, so that they now have less than 8 years to run. These charters must be renewed sufficiently in advance of the expiration of their present tenure to avoid any uncertainty as to continuity of policies and administration. It would seem, therefore, that the question of their renewal should not be delayed beyond the present session of Congress. There is, fortunately, little difference of opinion as to the advisability of extending these charters. In the few years of their existence the Federal reserve banks have demonstrated beyond any doubt their value to the country. During these years the country has come safely through a great war, not only without a panic but with a minimum of strain upon our financial structure. The credit for this achievement is due in large measure to the steadying influence exerted by the Federal reserve system.

It is difficult to imagine how this could have been accomplished with the archaic banking system under which the country operated prior to the passage of the Federal reserve act. That system consisted of a network of independent banks, with scattered and immobile bank reserves and a credit inelasticity which rendered it totally inadequate to the country's needs. The old banking system was so constituted that it operated to aggravate rather than to relieve panic symptoms in any financial emergency. National banks could issue currency only when secured by Government bonds and were consequently unable to increase the currency in times of stringency. State banks could expand their credit facilities only by borrowing from the larger metropolitan banks, with the result that all loans in the end converged on New York. Instead of a coördinated system of banks with a common reservoir of credit, we had a large number of independent banking units, which in times of stress struggled against each other, never working together as part of one great financial structure.

These defects are cured by the Federal reserve system. The 12 regional banks, under the responsible coördinating influence of the Federal Reserve Board, can effect that prompt mobilization of reserves which is so essential in preventing panics. These banks are also able to provide the country with an elastic currency, which expands or contracts with seasonal and trade needs. It is possible to supply the farmers and the trade with adequate currency during the crop-moving period and to effect the necessary contraction when the seasonal requirements have been met. The reserves of each regional

[1] *Annual Report of the Secretary of the Treasury on the State of the Finances for the Fiscal Year Ended June 30, 1926,* pp. 2-5. Washington, 1927.

bank are available, through the discounting privilege, to all other Federal reserve banks. The funds of the central reservoir can be diverted to any bank in the system which has need of them, so that the financing of an increasing or a decreasing volume of business can be accomplished with ease.

Although the Federal reserve system was put into operation just prior to the outbreak of the World War in a period of unprecedented economic and financial strain, it not only emerged without any impairment of its own strength and stability, but gave the country the soundest financial structure in our history. It also enabled the Nation to adjust itself to the new conditions following the war and kept the financial crisis, which arose during the period of postwar deflation, from degenerating into a panic. As a result, there was no impairment of our financial structure at a time when such a calamity would have had most serious consequences throughout the world.

The Federal reserve system is to-day one of the most important factors in the effort toward world stabilization. When England made the momentous decision to tie its currency to gold and to reëstablish the pound upon a gold basis at its former value, it meant that the old standard for financial transactions was to continue and that America was not to be left holding the world's supply of a metal for which the other nations were seeking a substitute. The treasuries of the two countries supported this action, but great credit is due to the Federal reserve banks for the part which they played in bringing about this result. These banks extended a credit of $100,000,000 to the Bank of England, and the British Treasury arranged for credits of an additional $200,000,000 with private American bankers. England has been on a gold basis now for a year and a half and has not used a single dollar of these credits; nevertheless, without the support furnished by the Federal reserve banks, I do not believe that stabilization would have taken place at the time when it actually occurred.

In the plans for the stabilization of the rest of Europe, the participation of the Federal reserve banks is equally necessary; and in all this the interests of the American farmer and manufacturer are vitally concerned. The nations of the world must be reëstablished on a sound financial basis if our surplus products are to find an export market. The improvement in world markets and some adjustments in production have already accomplished more for agriculture in this country than unlimited extensions of credit or artificial measures of price control could possibly have done.

The plans which are now taking shape throughout the world look far ahead; for this reason, it is important that no element of uncertainty should be injected into the situation such as would come from a delay in extending the charters of the Federal reserve banks. It is equally important that the system should not be impaired by changes which seek to benefit any special group of producers or con-

sumers but which, in the end, might prove to be fundamental and might interfere seriously with the proper functioning of the banks as reserve institutions. There must be changes from time to time and adjustments to new conditions. But these changes must be made, not for partisan purposes or to satisfy any class or group, but in accordance with sound banking principles.

Banking Legislation

The Federal reserve system is a most important element in the continuation of prosperity in America and will be indispensable again in any financial crises which may come. Its continued operation, however, depends upon its representing the bulk of the banking resources of the country and its power to retain these resources in time of emergency.

Membership in the Federal reserve system is made up of all the national banks, which are required by law to be members, and of such State banks as may voluntarily join the system. At present the membership consists of all the national banks, about 8,000 in number, and 1,400 out of 20,000 State banks. The combined resources of member banks represent nearly two-thirds of the banking resources of the country. If the system becomes one composed principally of voluntary members, the system, the Government, and the country might be embarrassed in time of emergency by the withdrawal of membership and the depletion of the banking resources subject to mobilization. It seems to me, then, desirable that Congress should keep the national banks, which are always members of the Federal reserve system, upon a reasonable equality of powers with the State banks, so that the national banks may continue to meet the competition of State banks and survive.

The national bank is the creature of the Federal Government; the State bank the creature of the particular State in which the bank is located. National banks and State banks exist side by side in the various States; and if in any State the law of that State grants a power to the State bank which the laws of Congress deny to its neighbor, the national bank, and if this power be a valuable business privilege, the tendency is for the State bank to grow at the expense of the national bank until ultimately the stockholders of the national bank abandon their national charter and take out a State charter. With the development of banking some States have increased the powers of their banks, and in some particulars Congress has also liberalized the national bank act to equalize privileges between the two classes of banks. For example, under certain conditions a national bank may exercise trust powers in a State where like privileges are given to State banks. This is fair to each and is a policy which should be followed by Congress, except in such cases as the privilege granted to a State bank is in the opinion of Congress unsound from a banking standpoint.

Cost of the War. Report of Secretary of Treasury, 1919

14.[1] The Cost of the War

The total expenditures of the Government, exclusive of the principal of the public debt and postal disbursements from postal revenues, for the war period from April 6, 1917, to October 31, 1919, amounted to $35,413,000,000, according to statistics compiled on the basis of the daily Treasury statements. Of that great total covering the disbursements for two years and seven months, $11,280,000,000, or nearly 32 per cent, was met out of tax receipts and other revenues than borrowed money, although the amount of taxes does not include the December 15, 1919, installment of income and profits taxes for the fiscal year 1919, nor any part of such taxes for the fiscal year 1920.

The above calculation includes capital outlays as well as expenditures that have been permanently absorbed. No deduction is made for loans to the Allies, or for other investments, such as ships, stock of the War Finance Corporation, bonds of the Federal land banks, etc. Foreign loans on October 31, 1919, aggregated $9,406,000,000, and if that amount is deducted from the total expenditures, the disbursements for the purposes of the American Government during the war period under consideration were $26,007,000,000. And on that basis, the proportion met out of tax receipts and revenues other than borrowed money was over 43 per cent.

If it is assumed that the expenses of the Government on a peace basis would have been at the rate of $1,000,000,000 a year, or $2,583,000,000 for the two years and seven months mentioned, the estimate of the gross cost of the war to October 31, 1919, would be $32,830,000,000, inclusive of loans to foreign Governments, or $23,424,000,000 exclusive of such loans.

Annual Report of the Comptroller of the Currency, 1921

15.[2] Retrospect and Outlook at Home and Abroad

The immediate effect in this country of the outbreak of the European war was a general paralysis of trade, industry, and finance. The suspension of business on the stock and other exchanges and the prompt declaration of moratoriums aided in securing stabilization, and the financial measures which were immediately put into effect by the Treasury Department were instrumental in preventing a commercial crisis and a financial crash. Confidence in the ability of this country to meet its obligations abroad, however vast they seemed at that time, was soon established; and before the expiration of 12 months, fear, stagnation, and confusion had given way to confidence

[1] *Annual Report of the Secretary of the Treasury on the State of the Finance for the Fiscal Year Ended June 30, 1919,* pp. 25-26. Washington, 1920.

[2] *Annual Report of the Comptroller of the Currency to the Third Session of the Sixty-sixth Congress of the United States, December 6, 1920,* vol. i, pp. 2-4, 6-9. Washington, 1921.

and renewed business activities; and by the latter part of 1915 the upward swing was well under way. The year 1916 was one of feverish activity, and our foreign trade, which in the year 1914 amounted to less than 4 billion dollars, nearly doubled, and amounted, for the calendar year 1916, to approximately 8 billion dollars. The balance of trade in our favor for 1916 exceeded 3 billion dollars, and was approximately *ten times* as great as the favorable balance of the year 1914.

With our declaration of war against Germany early in the year 1917, the business of this country—farming, manufacturing, commercial, mining, and everything else—was given additional impetus. Commodity prices soared to unprecedented heights, and were finally restrained only by Government mediation and price fixing. The prices, however, which producers and traders were allowed by the Government to charge yielded unprecedented profits in well-nigh every branch of industry; and inflation was stimulated further by the importation in the years 1916 and 1917 of huge sums of gold from abroad. Our imports of gold in 1916 and 1917 amounted actually to $1,238,444,608, our exports to $527,676,811, leaving a net excess of imports of gold over exports for the two years of $710,767,797, which, with the excess of imports over exports for the year 1915 provided a net surplus of gold imports for the three years of 1915, 1916 and 1917, of $1,131,296,469.

The urgent and unguarded buying of American products by the Allies in the early days of the war had driven the prices of our products to unprecedented figures; and it became difficult, subsequently when a more orderly system of buying was instituted, both for our own Government and for the Allies to return to anywhere near normal prices. It has been estimated that the profits and increments accruing to the people of this country during the last year of the war amounted, approximately, to 50 billions of dollars; and that the surplus income over and above the living expenses of the people despite the extravagant rate at which they were living, approximated 15 billion dollars for that year.

After the armistice, the demands for war materials of course ceased, but the cries from the impoverished countries of Europe for foods continued, and the demands for materials for reconstruction and rehabilitation developed rapidly.

The profits which South America, China, and Japan had also realized in supplying the products of those respective countries to the Allies had brought about a condition of high prosperity and activity in all of those countries, and their peoples had acquired a taste for luxuries and for the products of other countries which we were called upon to supply in huge quantities.

The demands made upon the United States for steel and iron products, machinery, agricultural implements, fabrics, foods, automobiles, and specialties of all kinds gave to our business men visions of un-

checked and limitless prosperity; and our exports of merchandise for the year 1919 following the war exceeded by nearly 1 billion dollars our total exports for the war year 1918. Imports into this country of merchandise from every quarter of the globe also broke all records, and amounted for the year 1919 to $3,904,000,000, nearly 1 billion dollars more than the maximum amount of imports ever before brought in.

Turn of the Tide

The turning of the tide in the world delirium and inflation came in the spring of 1920, with the financial and industrial collapse which took place in the Empire of Japan. The Japanese had profited hugely from the supplies which they had furnished to the Allies, and from the operation of their merchant marine, the profits of which during the war were enormous. This great business had brought about the creation and flotation of numerous new financial, manufacturing, and trading corporations throughout Japan; and in the flotation of these companies a spirit of reckless speculation had been developed which pervaded every section of the population of that country—farmers, merchants, professional men, bankers, and public officials.

The efforts which were made primarily in this country to bring about an orderly deflation, and the curbing of reckless speculation, began to make themselves felt, not only here but in all the countries with which we had been dealing. The apparently insatiable demand which America had developed for such luxuries as silks had tremendously stimulated the silk industry of Japan. The prices of raw silk had advanced in the space of a year or two approximately 400 per cent, maximum prices having been reached in January and February of 1920.

A rather sudden curtailment of suspension of the American demand for silks had an immediate effect upon the Japanese market. The collapse in the prices of raw and manufactured silks was followed by the prostration of the Japanese market for cotton goods, which in recent years has become one of the great industries of that country. The closing down of numerous other industries followed in the wake of the financial panic, which had resulted in the suspension of some of the largest banks and business houses in the Empire, and an acute depression in business set in, and still continues.

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The story of Japan's industrial and financial experience is largely similar to the experience of South American and European countries —some of them our allies, and others neutral. Some of these countries are now going through a business cataclysm similar to that through which Japan has so recently passed.

In our own country we have been thus far fortunate enough—thanks largely to the splendid efficiency and stabilizing influence of the Federal reserve system—to avoid the financial crises and complete disor-

ganization which have made havoc elsewhere. We have passed with comparative safety through exceedingly troubled and nerve-racking times; but difficult and dangerous problems remain to be solved, the solution of which will demand clear heads and steady nerves.

In the period of feverish business excitement accompanying the war, some of our business men and heads of great industries became accustomed to enormous profits which they vainly hoped might be perpetuated.

Vain Efforts to Maintain Excessive Profits

This tendency was particularly conspicuous in the steel and iron and coal industries. By closing down mills and mines the output of steel and iron was reduced, approximately one-fourth the year following the armistice, in order that manufacturers and miners might obtain, because of the insistent and peremptory demand, the exorbitant profits realized during the war rather than the more moderate profits they would have had to accept if a maximum output had been maintained. While the profits of steel manufacturers and coal operators were swollen the country became poorer from the lack of production brought about by the unnecessary closing down of mills and mines and the incidental idleness of labor.

Neither this country nor foreign countries can afford to continue to pay the inflated prices which steel and iron manufacturers continue to demand for their products. As steel and iron are so largely at the very foundation of industrial activity and business developments it is essential that the prices of these fundamentals should come down to a fair, just, and normal basis if we are again to attain the prosperity for which we hope.

The increase which has taken place in wages since the war does not excuse present prices for steel and iron products. A careful analysis which was made of the reports of one of the largest and most important steel and iron companies shows that that company in the last year of the war, 1918, charged, on an average for every ton of steel which it produced, at least $25 per ton in excess of a price which would have enabled the company to pay full dividends upon its very large capital stock. The report of the same corporation shows, furthermore, that its net earnings were so enormous that the company could have paid its accustomed dividends upon its shares even if it had paid its employees wages 100 per cent higher than the wages it actually did pay.

The coal operators who, prior to the war, eagerly sought for large contracts for coal on a margin of 10 to 20 cents per ton, have in some cases during the past year exacted prices to yield them a profit of $10 per ton or more. This means that their net profits in some instances have amounted to 100 times as much per ton of coal as those which they were willing and glad to accept before the war; and it is also painfully clear that the highest prices paid for coal have been exacted

from buyers who could least afford to pay the extortionate rates, namely, our allies, whose sacrifices in the great World War, in both men and money, so greatly exceeded our own.

Deflation Becomes Worldwide

The deflation which, as we have seen, took place so precipitately in Japan has made headway in every country, civilized and uncivilized, from the Arctic Ocean to the tropical jungles; and most of the products of human labor and human enterprise in nearly every country on the globe are now obtainable for a fraction of the prices which prevailed a year ago. The raw silks of Japan are quoted at one-fourth to one-fifth of last January's prices. The raw cotton from our own Southern States is selling at one-third the price of last summer. Rubber from the valley of the Amazon or the Congo forests, vegetable oil from the far East, wool from Australia, hides from the Argentine, coffee from Brazil, sugar from Java and Cuba, all may now be purchased at prices from one-fourth to one-half of those paid since the armistice.

The shrinkage in prices during the last year in the products of our own country, and in the products of other countries, purchased at high prices by our merchants and business men, if applied to our crops, and the products of our mines, forests, and factories, would represent an apparent loss sufficient to stagger the boldest imagination. For example, the shrinkage of, say, a dollar a bushel from the high price of a year or so ago to the present farm values of corn would, if multiplied by a crop of 3¼ billion bushels, represent an apparent loss to the corn growers, as compared with their expectations, of 3¼ billion dollars.

On the same principle of calculation the cotton grower figures a loss on raw cotton and cotton seed of 2 billion dollars more. The wheat grower, who had hoped for $3 per bushel, feels that he has lost another billion and a half dollars.

Hundreds of millions of dollars additional have been swept away by the collapse in the prices of wool, of hides, of leather, of furs; and the losses which have been sustained from the collapse in the sugar market from 23 cents to 5 cents per pound have been wholly without precedent in the sugar trade.

Shrinkage Estimated at Twelve to Eighteen Billions

It is probable that the shrinkage in the past year in the market or salable value of the products of our fields and forests, of factories, mills, and mines, in this country alone, as compared with the high level from which they have descended, amounts to between twelve and eighteen billion dollars.

This melting away of property values is reflected, but only partially, in the decline which has taken place in the market value of the shares of industrial corporations listed on the New York Stock Exchange. A computation recently made shows that the depreciation which has

taken place from the high prices of last year and this to the low prices of the current year in the stocks of industrial corporations alone listed on the New York Stock Exchange amounts to between three and four thousand million dollars. This is irrespective of the shrinkage which has occurred in the shares of many railroad corporations which have reached this year the lowest prices in their history.

A serious shrinkage of values was foreseen and predicted more than a year ago by those who studied conditions and considered the history of past wars. It has come faster and more violently than heretofore, presumably because more rapid communication and transportation expedite the succession of inevitable effect on cause. Thus far results have not only come more quickly than after our former severe wars, but have been less calamitous. There is every reason to believe that the same facts that hasten disaster will hasten recovery; and that the people of different countries and classes, being more intimately in touch with each other than ever before, will more promptly understand each other's rights and requirements and realize that it is to the interest of all to work together for fair readjustments.

The precipitate decline which has already been witnessed in so many leading commodities encourages the belief that in most cases we are near the bottom, the fall, in some instances, having been already excessive and abnormal and really not justified by actual conditions. Despite the tremendous decline in the prices of the raw materials for the articles upon which the cost of living is based—food, clothing, and the cost of shelter or housing—the private citizen is not yet receiving the full benefit of the drop; but he is required to pay a tax in the shape of middlemen's profits, which, in many cases, is inexcusable and unwarranted. We need not imagine that we have reached a firm and stable foundation until *excessive profits* are further deflated; until the private citizen is able to acquire, at the expenditure of $1 of his hard-earned money, something approximating the quantity and quality which that dollar commanded in prewar times.

One of the chief blessings growing out of the war has been the movement toward equalization and the decided raising of the wages of the working people to a fairer and more equitable basis. This is for the permanent betterment of the country. Yet wages have not been altogether equalized; in some cases the advance has been insufficient; in others it has been excessive.

Many industries will find it impossible to continue the present high wages when competition with foreign countries again begins in earnest, as it will, and when commerce with all parts of the world will have been again speeded up, as it will be presently, through the agency of our enormously developed merchant marine.

We can not meet this foreign competition if our miners, mechanics, and laborers loaf three days in the week and demand wages for the other three days equal to those they formerly received for six days' labor. If this country is to prosper and grow and keep pace with the

reawakened world—to say nothing of leading that world—it will be necessary for our people to work full time and intensely, and to proceed with all the skill and intelligence of which they are capable.

The nations with which we must compete have huge populations, with modern and scientifically equipped mills, factories, and workshops, and are determined to get on their feet again and achieve prosperity; and they know that they can succeed only by energy, thrift, and sacrifice.

We need not depart from the eight-hour day, nor relinquish any of the legitimate benefits which the laboring man has won and is now enjoying in the shape of improved environment and working conditions, in order to keep this country on the highest plane of prosperity and on a basis which will enable it to compete with any other country. The important thing is that waste shall be eliminated as quickly as possible; that all prices shall be brought down to a sound and healthy level; that excessive and exorbitant profits shall be dropped, and that we go ahead at full speed to produce.

War Debt Settlement with Great Britain

16.[1] A Proposal

Dated the eighteenth day of June, 1923, by His Britannic Majesty's Government, hereinafter called Great Britain, to the Government of the United States of America, hereinafter called the United States, regarding the funding of the debt of Great Britain to the United States.

Whereas Great Britain is indebted to the United States as of 15th December, 1922, upon demand obligations in the principal amount of $4,074,818,358.44, not including obligations in the principal amount of $61,000,000 representing advances deemed to have been made to cover purchases of silver under the Act of Congress approved 23rd April, 1918, of which $30,500,000 has been repaid in April and May, 1923, and the balance is to be repaid in 1924, pursuant to an agreement already made between the parties, and Great Britain is further indebted to the United States, as of 15th December, 1922, on account of interest accrued from 15th April and 15th May, 1919, on said $4,074,818,358.44, principal amount of demand obligations:

And whereas Great Britain has power under the War Loan Act, 1919 (9 and 10 Geo. 5, cap 37) to issue securities in exchange for maturing securities issued under the War Loan Acts, 1914 to 1918:

And whereas the demand obligations now held by the United States Treasury were so issued, and will become payable upon the request of the United States Treasury for their payment:

[1] Agreement dated June 19, 1923. Approved on the part of the United States by Act of Congress of February 28, 1923. It was not necessary to have the agreement ratified by the British Parliament. This and other war debt settlements may be found in H. G. Moulton and Leo Posvolsky, *World War Debt Settlements,* New York, 1926.

Now therefore Great Britain proposes, in the exercise of the powers above recited and in consideration and in faith of the statements, conditions, premises and mutual covenants herein contained, to issue to the United States, in exchange for the demand obligations now held by the United States Treasury, securities which shall be in their terms and condition in accordance with the following provisions:

1. *Amount of Indebtedness.*

The total amount of indebtedness to be funded is $4,600,000,000, which has been computed as follows:

Principal amount of demand obligations to be funded		$4,074,818,358.44
Interest accrued thereon from 15th April and 15th May, 1919, respectively, to 15th December, 1922, at the rate 4¼ per cent per annum	$629,836,106.99	
Less—Payments made by Great Britain on 16th October and 15th November, 1922, on account of interest, with interest thereon at 4¼ per cent per annum from said dates, respectively, to 15th December, 1922	100,526,379.69	
		529,309,727.30
Total principal and interest, accrued and unpaid, as of 15th December, 1922		4,604,128,085.74
Paid in cash by Great Britain, 15th March, 1923		4,128,085.74
Total indebtedness to be funded into bonds of Great Britain		$4,600,000,000.00

2. *Issue of Long-time Obligations.*

The securities, which it is proposed to issue at par as promptly as possible, shall be obligations in the principal amount of $4,600,000,000, in the form of bonds to be dated 15th December, 1922, maturing 15th December, 1984, with interest payable semi-annually on 15th June and 15th December in each year at the rate of 3 per cent per annum from 15th December, 1922, to 15th December, 1932, and thereafter at the rate of 3½ per cent per annum until the principal thereof shall have been repaid.

3. *Method of Payment.*

The bonds shall be payable as to both principal and interest in United States gold coin of the present standard of weight and fineness, or its equivalent in gold bullion, or, at the option of Great Britain, upon not less than thirty days' advance notice indicating the minimum amount which it is contemplated to pay at next due date in gold, cash or available funds, in any bonds of the United States issued or to be issued after 6th April, 1917, to be taken at par and accrued interest to the date of payment hereunder: *provided, however,* that Great Britain may at its option, upon not less than ninety days' advance notice, pay up to one-half of any interest accruing between 15th December, 1922, and 15th December, 1927, on any British bonds proposed to be issued hereunder, in bonds of Great Britain, maturing 15th December, 1984, dated and bearing interest from the respective dates when the interest to be paid thereby becomes due and substantially similar in other respects to the original bonds proposed to be issued hereunder.

All payments to be made by Great Britain on account of the principal or interest of any bonds proposed to be issued hereunder shall be made at the Treasury of the United States in Washington or, at the option of the Secretary of the Treasury of the United States, at the Federal Reserve Bank of New York and, if in cash, shall be made at the option of Great Britain in gold coin of the United States or in gold bullion or in immediately available funds (or, if in bonds of the United States, shall be in form acceptable to the Secretary of the Treasury of the United States). Appropriate notation of all payments on account of principal shall be made on the bonds proposed to be issued hereunder which may be held by the United States: *provided, however,* that all payments in respect of any marketable obligations issued under paragraph 9 of this proposal shall be made at the office of the fiscal agents of the British Government in the City of New York.

4. *Exemption from taxation.*

The principal and interest of all bonds issued or to be issued hereunder shall be exempt from all British taxation, present or future, so long as they are in the beneficial ownership of the United States or of a person, firm, association, or corporation neither domiciled nor ordinarily resident in the United Kingdom.

5. *Form of Bonds.*

All bonds proposed to be issued hereunder to the United States shall be payable to the United States of America, or order, shall be issued, so far as possible, in denominations of $4,600,000 each, and shall be substantially in the form set forth in the exhibit annexed hereto, and marked "Exhibit A." The bonds shall be signed for Great Brit-

ain by the Counsellor of His Britannic Majesty's Embassy at Washington.

6. *Repayment of Principal.*

To provide for the repayment of the total principal of the debt before maturity of the $4,600,000,000 principal amount of bonds to be issued, it is proposed that the bonds shall contain provisions the effect of which shall be that Great Britain shall make to the United States payments, on account of the original principal amount of the bonds to be issued, in the amounts and on the dates named in the following table. [Table here omitted]

Provided, however, that Great Britain may at its option, upon not less than ninety days' advance notice, postpone any payment of principal falling due as hereinabove provided to any subsequent 15th June or 15th December, not more than two years distant from its due date, but only on condition that, if Great Britain shall at any time exercise this option as to any payment of principal, the payment falling due in the next succeeding year cannot be postponed to any date more than one year distant from the date when it becomes due, unless and until the payment previously postponed shall actually have been made, and the payment falling due in the second succeeding year cannot be postponed at all unless and until the payment of principal due two years previous thereto shall actually have been made.

In the event of Great Britain issuing bonds to the United States in payment of interest accruing between 15th December, 1922, and 15th December, 1927, as proposed in paragraph 3 above, the bonds so issued shall contain provision for the payment of their principal before maturity through annual instalments on account of principal corresponding substantially to the schedule of payments on account of principal appearing in the table hereinabove set forth.

7. *Payments before Maturity.*

Great Britain may at its option, on any interest date or dates upon not less than ninety days' advance notice, make advance payments of principal, in addition to the payments required to be made by the provisions of the bonds in accordance with paragraph 6 of this proposal. Any such additional payments shall first be applied to the principal of any bonds which shall have been issued hereunder on account of interest accruing between 15th December, 1922, and 15th December, 1927, and then to the principal of any other bonds which shall have been issued hereunder. Any payments made to the United States under this provision shall be in amounts of $1,000,000 or multiples thereof.

8. *Calculation of Interest.*

Notwithstanding anything herein contained, the interest payable from time to time on the bonds proposed to be issued shall be computed on the amount of the principal outstanding on the previous interest date,

with adjustments in respect of any payment on account of principal which may have been made since the previous interest date.

9. *Exchange for Marketable Obligations.*

Great Britain will issue to the United States at any time or from time to time, at the request of the Secretary of the Treasury of the United States, in exchange for any or all of the bonds proposed to be issued hereunder and held by the United States, definitive engraved bonds in form suitable for sale to the public, in such amounts and denominations as the Secretary of the Treasury of the United States may request, in bearer form, with provision for registration as to principal, and/or in fully registered form, and otherwise on the same terms and conditions, as to dates of issue and maturity, rate or rates of interest, exemption from taxation, payment in bonds of the United States issued or to be issued after 6th April, 1917, payment before maturity, and the like, as the bonds surrendered on such exchange, except that the bonds shall carry such provision for repayment of principal as shall be agreed upon; provided that, if no agreement to the contrary is arrived at, any such bonds shall contain separate provision for payments before maturity, conforming substantially to the table of repayments of principal prescribed by paragraph 6 of this proposal and in form satisfactory to the Secretary of the Treasury of the United States, such payments to be computed on a basis to accomplish the retirement of any such bonds by 15th December, 1984, and to be made through annual drawings for redemption at par and accrued interest. Any payments of principal thus made before maturity on any such bonds shall be deducted from the payments required to be made by Great Britain to the United States in the corresponding years under the terms of the table of repayments of principal prescribed in paragraph 6 of this proposal.

Great Britain will deliver definitive engraved bonds to the United States in accordance herewith within six months of receiving notice of any such request from the Secretary of the Treasury of the United States, and pending the delivery of the definitive engraved bonds will, at the request of the Secretary of the Treasury of the United States, deliver temporary bonds or interim receipts in a form to be agreed upon within three months of the receipt of such request. The United States, before offering any such bonds or interim receipts for sale in Great Britain, will first offer them to Great Britain for purchase at par and accrued interest and Great Britain shall likewise have the option, in lieu of issuing to the United States any such bonds or interim receipts, to make advance redemption, at par and accrued interest, of a corresponding amount of bonds issued hereunder and held by the United States.

10. *Cancellation and Surrender of Demand Obligations.*

Upon the delivery to the United States of the $4,600,000,000 principal amount of bonds proposed to be issued hereunder, the United

States will cancel and surrender to Great Britain, through the British Ambassador at Washington, or his representative, at the Treasury of the United States in Washington, the demand obligations of Great Britain in the principal amount of $4,074,818,358.44 described in the preamble to this proposal.

11. *Notices.*

Any notice, request or consent under the hand of the Secretary of the Treasury of the United States shall be deemed and taken as the notice, request, or consent of the United States, and shall be sufficient if delivered at the British Embassy at Washington or at the office of the Permanent Secretary of the British Treasury in London; and any notice, request, or election from or by Great Britain shall be sufficient if delivered to the American Embassy in London or to the Secretary of the Treasury of the United States at the Treasury of the United States in Washington. The United States in its discretion may waive any notice required hereunder, but any such waiver shall be in writing and shall not extend to or affect any subsequent notice or impair any right of the United States to require notice hereunder.

Signed on behalf of the Lords Commissioners of His Majesty's Treasury, this eighteenth day of June, 1923.

Washington. A. GEDDES,

His Britannic Majesty's Ambassador Extraordinary and Plenipotentiary.

CHAPTER XVII

RECENT AGRICULTURAL TENDENCIES

NOTWITHSTANDING the fact that the number of farms almost tripled between the years 1860 and 1900 and that some 425,000,000 acres were added to the improved farm land, agriculture has relatively declined. For the farmers' interest the westward movement was, perhaps, too rapid. The reduction of such a vast region so quickly to agricultural purposes produced an over-supply of foodstuffs which forced down prices to disastrous levels. Making conditions more unfavorable for the Western farmer, the policy of the federal government in the years following the war was one of currency deflation. The debtor West, which had borrowed during the Civil War boom on a dollar which measured by a gold basis was worth perhaps fifty or sixty cents, was forced to meet the interest and principal on an eighty- or ninety-cent dollar. From the panic of 1873 to the prosperous period following the Spanish-American War the lot of the agrarian West was a hard one and discontent was widespread. It seethed in the Greenback and Populist parties, and was directed again and again at the vast and lawless power of the railroad.

The agrarian interests, always difficult to organize, found a temporary weapon in the mushroom growth of the Patrons of Husbandry. Founded in 1868, it boasted by 1875 of 21,000 Granges and a membership estimated at from 758,000 to 1,500,000. Disclaiming political partisanship or antagonism toward other economic groups (1) the Grange provided a medium for the discussion of grievances and an opportunity for making these grievances public (2). So powerful was the influence of the Grange believed to be that the legislation of the 'seventies aiming at state supervision of railroad rates has been called "granger legislation," and the legal cases arising therefrom as the "granger cases." The farmers' discontent which blazed forth anew in the Populist movement of the early 'nineties has been given expression in one of the most remarkable documents to be found in American political and economic history (3).

The agrarian discontent, as has been suggested, was simultaneous with the rapidly advancing frontier. Preceding the farmers' fron-

tier was a ranching frontier, which exploited the free grass on the public domain. The ranchers' frontier, characterized by the cowboy, the round-up, and the long drive (4), was an important episode in the frontier advance and one which popular fiction and the moving picture have clothed with a mantle of romance. It inevitably disappeared or was radically modified, however, before the steadily advancing farmers' frontier, which, like a mighty flood, spread over the arable land (5). By 1890 the frontier movement had come to an end. What the end of the frontier would mean in American history was for the future to tell, but it has long been recognized that it marked for the United States the opening of a new epoch (6).

Although the industrial advance has been relatively greater than that of agriculture, the United States continues to be the greatest agricultural nation in the world (7), the regions of which are sufficiently diverse in their characteristics to produce most of the agricultural products needed for home consumption (8). As late as 1880 many political economists, still dominated by the agrarian philosophy of pre-Revolutionary France, believed that agriculture was the beneficent wellspring of most that was good in American life (9). Decades of agrarian distress, however, and the many obvious advantages which the city affords have led to a more dispassionate and scientific approach to the agricultural problem. The charge that, with the revolution in agricultural machinery, farming has become more distinctly a capitalistic operation, and that tenancy has increased, has resulted in government investigations (10) which show that, although tenancy has gained, this country is as yet far from a system of great landlords and small tenants. At the same time the relative position of the agricultural class has declined (11). Of the elements affecting agriculture since the Civil War none have been more important than machinery, and the influence of the machine age upon labor has been as interesting in agriculture as in industry (12).

With the opening of the twentieth century, prosperity seemed at last to be returning to the agrarian West. The end of the frontier had checked the rapid development of new land, the demand had caught up with the supply, the price of foodstuffs was on the rise, and as a natural concomitant there was an increased value of farming land. This period of normal and healthy development was unfortunately cut short by the World War, which produced a sudden demand for increased production and a resulting expansion like that during the Civil War. The war boom was followed by deflation, price readjustment, debt, and in many cases bankruptcy (13). It brought, as in earlier periods, political demonstrations such as the

Non-Partisan League of the Northwest, the "farm-bloc," and the Progressive Party of 1924. It forced serious attention to the whole agricultural problem (14 and 15) and the methods of agrarian relief. For decades the farmers had sought relief from commercial bankers and eastern loan sharks, and finally, in 1916, obtained a concession in the Federal Farm Loan Act (16). The Federal Farm Loan banks proved their value during the post-war depression, but their inadequacy to solve the whole question of farm credit was apparent. The efforts of the "farm-bloc" to amplify this and other bills for the benefit of agriculture, and their attempts to devise methods to control agricultural prices have been the principal phases in the history of agrarian legislation since the war.

Declaration of Purpose of National Grange, 1874

1.[1] PREAMBLE. Profoundly impressed with the truth that the National Grange of the United States should definitely proclaim to the world its general objects, we hereby unanimously make this Declaration of Purposes of the Patrons of Husbandry:

GENERAL OBJECTS. 1. United by the strong and faithful tie of agriculture, we mutually resolve to labor for the good of our Order, our country, and mankind.

2. We heartily indorse the motto: "In essentials, unity; in non-essentials, liberty; in all things, charity."

SPECIFIC OBJECTS. 3. We shall endeavor to advance our cause by laboring to accomplish the following objects:

To develop a better and higher manhood and womanhood among ourselves. To enhance the comforts and attractions of our homes, and strengthen our attachments to our pursuits. To foster mutual understanding and coöperation. To maintain inviolate our laws, and to emulate each other in labor to hasten the good time coming. To reduce our expenses, both individual and corporate. To buy less and produce more, in order to make our farms self-sustaining. To diversify our crops, and crop no more than we can cultivate. To condense the weight of our exports, selling less in the bushel and more on hoof and in fleece; less in lint, and more in warp and woof. To systematize our work, and calculate intelligently on probabilities. To discountenance the credit system, the mortgage system, the fashion system, and every other system tending to prodigality and bankruptcy.

We propose meeting together, talking together, working together, buying together, selling together, and in general acting together for our mutual protection and advancement, as occasion may require. We

[1] From the *Proceedings of the Seventh Session of the National Grange of the Patrons of Husbandry, St. Louis, Missouri, February 4, 1874.* Reprinted in Commons, J. R., *et al., Documentary History of American Industrial Society,* vol. x, pp. 100-105.

shall avoid litigation as much as possible by arbitration in the Grange. We shall constantly strive to secure entire harmony, good-will, vital brotherhood among ourselves, and to make our order perpetual. We shall earnestly endeavor to suppress personal, local, sectional, and national prejudices, all unhealthy rivalry, all selfish ambition. Faithful adherence to these principles will insure our mental, moral, social, and material advancement.

Business Relations. 4. For our business interests, we desire to bring producers and consumers, farmers and manufacturers into the most direct and friendly relations possible. Hence we must dispense with a surplus of middlemen, not that we are unfriendly to them, but we do not need them. Their surplus and their exactions diminish our profits.

We wage no aggressive warfare against any other interest whatever. On the contrary, all our acts and all our efforts, so far as business is concerned, are not only for the benefit of the producer and consumer, but also for all other interests that tend to bring these two parties into speedy and economical contact. Hence we hold that transportation companies of every kind are necessary to our success, that their interests are intimately connected with our interests, and harmonious action is mutually advantageous, keeping in view the first sentence in our declaration of principles of action that "Individual happiness depends upon general prosperity."

We shall, therefore, advocate for every state the increase in every practicable way, of all facilities for transporting cheaply to the seaboard, or between home producers and consumers, all the productions of our country. We adopt it as our fixed purpose to "open out the channels in nature's great arteries that the life-blood of commerce may flow freely."

We are not enemies of railroads, navigable and irrigating canals, nor of any corporation that will advance our industrial interests, nor of any laboring classes.

In our noble Order there is no communism, no agrarianism.

We are opposed to such spirit and management of any corporation or enterprise as tends to oppress the people and rob them of their just profits. We are not enemies to capital, but we oppose the tyranny of monopolies. We long to see the antagonism between capital and labor removed by common consent, and by an enlightened statesmanship worthy of the nineteenth century. We are opposed to excessive salaries, high rates of interest, and exorbitant per cent profits in trade. They greatly increase our burdens, and do not bear a proper proportion to the profits of producers. We desire only self-protection and the protection of every true interest of our land by legitimate transactions, legitimate trade, and legitimate profits.

Education. We shall advance the cause of education among ourselves and for our children, by all just means within our power. We especially advocate for our agricultural and industrial colleges that

practical agriculture, domestic science, and all the arts which adorn the home, be taught in their courses of study.

The Grange Not Partisan. 5. We emphatically and sincerely assert the oft-repeated truth taught in our organic law, that the Grange, National, State, or Subordinate, is not a political or party organization. No Grange, if true to its obligations, can discuss political or religious questions, nor call political conventions, nor nominate candidates, nor even discuss their merits in its meetings.

Yet the principles we teach underlie all true politics, all true statesmanship, and, if properly carried out, will tend to purify the whole political atmosphere of our country. For we seek the greatest good to the greatest number.

We must always bear in mind that no one, by becoming a Patron of Husbandry, gives up that inalienable right and duty which belongs to every American citizen, to take a proper interest in the politics of his country.

On the contrary, it is right for every member to do all in his power legitimately to influence for good the action of any political party to which he belongs. It is his duty to do all he can in his own party to put down bribery, corruption, and trickery; to see that none but competent, faithful, and honest men, who will unflinchingly stand by our industrial interests, are nominated for all positions of trust; and to have carried out the principle which should always characterize every Patron, that the office should seek the man, and not the man the office.

We acknowledge the broad principle that difference of opinion is no crime, and hold that "progress toward truth is made by differences of opinion," while "the fault lies in bitterness of controversy."

We desire a proper equality, equity, and fairness; protection for the weak, restraint upon the strong; in short, justly distributed burdens and justly distributed power. These are American ideas, the very essence of American independence, and to advocate the contrary is unworthy of the sons and daughters of an American republic.

We cherish the belief that sectionalism is, and of right should be, dead and buried with the past. Our work is for the present and the future. In our agricultural brotherhood and its purposes we shall recognize no north, no south, no east, no west.

It is reserved by every Patron, as the right of a freeman, to affiliate with any party that will best carry out his principles.

Outside Coöperation. 6. Ours being peculiarly a farmers' institution, we cannot admit all to our ranks. Many are excluded by the nature of our organization, not because they are professional men, or artisans, or laborers, but because they have not a sufficient direct interest in tilling the soil, or may have some interest in conflict with our purposes. But we appeal to all good citizens for their cordial cooperation to assist in our efforts toward reform, that we may eventually remove from our midst the last vestige of tyranny and corruption.

We hail the general desire for fraternal harmony, equitable compromises, and earnest coöperation, as an omen of our future success.

7. It shall be an abiding principle with us to relieve any of our oppressed and suffering brotherhood by any means at our command.

Last, but not least, we proclaim it among our purposes to inculcate a proper appreciation of the abilities and sphere of woman, as is indicated by admitting her to membership and position in our order.

Imploring the continued assistance of our Divine Master to guide us in our work, we here pledge ourselves to faithful and harmonious labor for all future time, to return by our united efforts to the wisdom, justice, fraternity, and political purity of our forefathers.

Discouraging State of Agriculture as Seen by Grangers, 1877

2.[1] Your Special Committee, raised "to take into consideration the state and condition of American agriculture, and to report such measures and policies as in their judgment will tend to afford relief from the weights, hindrances and difficulties that may beset it, and to suggest such methods as will restore to American farmers greater prosperity and promote their political and material welfare," have given the subject such consideration as opportunity and circumstances allowed, and present the following report. . . . American farming is growing less profitable and less encouraging.

In a country possessing so many facilities of cheap production this discouraging aspect of agriculture must be and is the result of other than natural causes. The annual additions of wealth under the enlightened system of agriculture are enormous, but from the unequal divisions of the profits of labor and the unjust discriminations made against it, the enlistments of property show that the farmers of the United States are not prospering. While it is rapidly extinguishing all debts and restoring an equilibrium to the currency of the country, its votaries are deprived of a just share of the rewards of their toil. Capital concentrates to make corners and form rings to fix prices. Transportation companies are allowed to make and unmake prices at will by their unjust and discriminating tariffs and freights. Subsidies and tariffs are created to protect other industries to the prejudice of agriculture. Commerce is shackled. American productions are denied the markets of the world through partial and restrictive laws. Agricultural property is made to bear an unequal and undue proportion of taxation to afford exemptions and privileges to other industries. Monopolies are permitted to assume power and control and exercise prerogatives and privileges justly belonging to sovereignty. Encouraged by legislation and stimulated by power, they have grown dictatorial and imperious in their demands, unrelenting in their exactions, and cruel and unmerciful in their impositions. So-

[1] From the *Proceedings of the Thirteenth Session of the National Grange of the Patrons of Husbandry, New York, November 19, 1877.* Reprinted in Commons *et al., Documentary History of American Industrial Society,* vol. x, 133–136.

ciety has become extravagant and is now a heedless spendthrift of the painful earnings of labor. Government has become proud and autocratic, while her toiling laborers are humiliated in their poverty. States are lavish and prodigal with the people's money. Cities and towns grow rich at the expense and impoverishment of the country. Laws are ingeniously formulated to make justice tardy and thus tend to encourage crime and disorder. In view of the well-established fact that the productive industries must bear the burdens of society, chief among which is agriculture, the natural nursing mother of all the occupations, trades, and professions of our people, it is found that it is over-taxed and over-burdened with unnecessary, unjust, unequal, and flagrant impositions, that a just sense of right would transfer to where they justly belong. The farmers of America have on all occasions shown themselves to be a patient and enduring people, and further submisssion to wrong and injustice will be a sacrifice of manhood and exhibition of cowardice. Stirred with a just sense of right and supported by the integrity of our purpose, the National Grange of the Patrons of Husbandry, in the name and interests of the farmers of the United States, sternly demand—

1st. That the Department of Agriculture shall be made an Executive Department, and the Commissioner a Cabinet officer.

2nd. That the Agricultural Department shall be sustained and supported by annual appropriations commensurate with the importance of the great and permanent industry it represents.

3rd. That commercial treaties shall be made with all foreign countries, giving to American products equal and unrestricted intercourse with the markets of the world.

4th. That governments be administered in a cheaper and simpler manner, consonant with the conditions of the people.

5th. That a more rigid economy in the expenditures of public moneys be re-established.

6th. That the laws shall be plain and simple, to the end that justice shall be speedy, crime punished, and good government maintained.

7th. That the creation or allowing of monopolies to exist is in violation of the spirit and genius of free republican government.

8th. That the tariffs of freight and fare over railroads and all transportation companies shall be regulated, and all unjust discriminations inhibited by law.

9th. That taxation shall be equal and uniform, and all values made to contribute their just proportion to the support of the government.

10th. That the revenue laws of the United States shall be so adjusted as to bear equally upon all classes of property, to the end that agriculture shall be relieved of the disproportion of burdens it bears.

11th. That the patent laws of the United States be so revised that innocent purchasers of patent rights shall be protected, and fraudu-

lent venders alone held responsible for infringements of rights and violations of law.

12th. That a system of elementary agricultural education shall be adopted in the common schools of the country.

13th. That we are entitled to and should have a fair representation in the legislative halls of the country, chosen from the ranks of the farmers.

Emphatically asserting our unalterable determination to support and maintain these principles, we demand that they shall be incorporated in the laws of the country for the protection of American agriculture, and invoke the aid of the farmers of the United States in their support, regardless of party affiliations and party mandates. To follow the dictation of partisan influences whilst our earnings are spirited away, and our families beggared, is a degradation and sacrifice that cannot longer be endured.

With manly dignity we boldly declare our rights and interests, and with unwavering devotion will maintain and defend them on all occasions, and this warning is defiantly thrown to the world.

W. W. Lang, V. E. Piollet, D. T. Chase,
T. H. Harwell, A. B. Franklin, *Committee.*

Populist Program, 1892

3.[1] National People's Party Platform, Adopted at Omaha, Nebraska, July 4, 1892

Assembled upon the 116th anniversary of the Declaration of Independence, the People's Party of America, in their first national convention, invoking upon their action the blessing of Almighty God, put forth in the name and on behalf of the people of this country, the following preamble and declaration of principles:

PREAMBLE

The conditions which surround us best justify our co-operation; we meet in the midst of a nation brought to the verge of moral, political, and material ruin. Corruption dominates the ballot-box, the Legislatures, the Congress, and touches even the ermine of the bench. The people are demoralized; most of the States have been compelled to isolate the voters at the polling places to prevent universal intimidation and bribery. The newspapers are largely subsidized or muzzled, public opinion silenced, business prostrated, homes covered with mortgages, labor impoverished, and the land concentrating in the hands of capitalists. The urban workmen are denied the right to organize for self-protection, imported pauperized labor beats down their wages, a hireling standing army, unrecognized by our laws, is established to shoot them down, and they are rapidly degenerating into European conditions. The fruits of the toil of millions are boldly

[1] McPherson, Edward, *A Handbook of Politics for 1892,* pp. 269–271, Washington, 1892; *The World Almanac, 1893,* pp. 83–85.

stolen to build up colossal fortunes for a few, unprecedented in the history of mankind; and the possessors of these, in turn, despise the Republic and endanger liberty. From the same prolific womb of governmental injustice we breed the two great classes—tramps and millionaires.

The national power to create money is appropriated to enrich bondholders; a vast public debt payable in legal-tender currency has been funded into gold-bearing bonds, thereby adding millions to the burdens of the people.

Silver, which has been accepted as coin since the dawn of history, has been demonetized to add to the purchasing power of gold by decreasing the value of all forms of property as well as human labor, and the supply of currency is purposely abridged to fatten usurers, bankrupt enterprise, and enslave industry. A vast conspiracy against mankind has been organized on two continents, and it is rapidly taking possession of the world. If not met and overthrown at once it forebodes terrible social convulsions, the destruction of civilization, or the establishment of an absolute despotism.

We have witnessed for more than a quarter of a century the struggles of the two great political parties for power and plunder, while grievous wrongs have been inflicted upon the suffering people. We charge that the controlling influences dominating both these parties have permitted the existing dreadful conditions to develop without serious effort to prevent or restrain them. Neither do they now promise us any substantial reform. They have agreed together to ignore, in the coming campaign, every issue but one. They propose to drown the outcries of a plundered people with the uproar of a sham battle over the tariff, so that capitalists, corporations, national banks, rings, trusts, watered stock, the demonetization of silver and the oppressions of the usurers may all be lost sight of. They propose to sacrifice our homes, lives, and children on the altar of mammon; to destroy the multitude in order to secure corruption funds from the millionaires.

Assembled on the anniversary of the birthday of the nation, and filled with the spirit of the grand general and chief who established our independence, we seek to restore the government of the Republic to the hands of the "plain people," with which class it originated. We assert our purposes to be identical with the purposes of the National Constitution; to form a more perfect union and establish justice, insure domestic tranquillity, provide for the common defence, promote the general welfare, and secure the blessings of liberty for ourselves and our posterity.

We declare that this Republic can only endure as a free government while built upon the love of the people for each other and for the nation; that it cannot be pinned together by bayonets; that the Civil War is over, and that every passion and resentment which grew

out of it must die with it, and that we must be in fact, as we are in name, one united brotherhood of free men.

Our country finds itself confronted by conditions for which there is no precedent in the history of the world; our annual agricultural productions amount to billions of dollars in value, which must, within a few weeks or months, be exchanged for billions of dollars' worth of commodities consumed in their production; the existing currency supply is wholly inadequate to make this exchange; the results are falling prices, the formation of combines and rings, the impoverishment of the producing class. We pledge ourselves that if given power we will labor to correct these evils by wise and reasonable legislation, in accordance with the terms of our platform.

We believe that the power of government—in other words, of the people—should be expanded (as in the case of the postal service) as rapidly and as far as the good sense of an intelligent people and the teachings of experience shall justify, to the end that oppression, injustice, and poverty shall eventually cease in the land.

While our sympathies as a party of reform are naturally upon the side of every proposition which will tend to make men intelligent, virtuous, and temperate, we nevertheless regard these questions, important as they are, as secondary to the great issues now pressing for solution, and upon which not only our individual prosperity but the very existence of free institutions depend; and we ask all men to first help us to determine whether we are to have a republic to administer before we differ as to the conditions upon which it is to be administered, believing that the forces of reform this day organized will never cease to move forward until every wrong is righted and equal rights and equal privileges securely established for all the men and women of this century.

PLATFORM

We declare, therefore—

First.—That the union of the labor forces of the United States this day consummated shall be permanent and perpetual; may its spirit enter into all hearts for the salvation of the Republic and the uplifting of mankind.

Second.—Wealth belongs to him who creates it, and every dollar taken from industry without an equivalent is robbery. "If any will not work, neither shall he eat." The interests of rural and civic labor are the same; their enemies are identical.

Third.—We believe that the time has come when the railroad corporations will either own the people or the people must own the railroads; and should the government enter upon the work of owning and managing all railroads, we should favor an amendment to the constitution by which all persons engaged in the government service shall be placed under a civil-service regulation of the most rigid character, so

as to prevent the increase of the power of the national administration by the use of such additional government employes.

FINANCE.—We demand a national currency, safe, sound, and flexible issued by the general government only, a full legal tender for all debts, public and private, and that without the use of banking corporations; a just, equitable, and efficient means of distribution direct to the people, at a tax not to exceed 2 per cent, per annum, to be provided as set forth in the sub-treasury plan of the Farmers' Alliance, or a better system; also by payments in discharge of its obligations for public improvements.

1. We demand free and unlimited coinage of silver and gold at the present legal ratio of 16 to 1.
2. We demand that the amount of circulating medium be speedily increased to not less than $50 per capita.
3. We demand a graduated income tax.
4. We believe that the money of the country should be kept as much as possible in the hands of the people, and hence we demand that all State and national revenues shall be limited to the necessary expenses of the government, economically and honestly administered.
5. We demand that postal savings banks be established by the government for the safe deposit of the earnings of the people and to facilitate exchange.

TRANSPORTATION.—Transportation being a means of exchange and a public necessity, the government should own and operate the railroads in the interest of the people. The telegraph and telephone, like the post-office sytem, being a necessity for the transmission of news, should be owned and operated by the government in the interest of the people.

LAND.—The land, including all the natural sources of wealth is the heritage of the people, and should not be monopolized for speculative purposes, and alien ownership of land should be prohibited. All land now held by railroads and other corporations in excess of their actual needs, and all lands now owned by aliens should be reclaimed by the government and held for actual settlers only.

EXPRESSION OF SENTIMENTS

Your Committee on Platform and Resolutions beg leave unanimously to report the following:

Whereas, Other questions have been presented for our consideration, we hereby submit the following, not as a part of the Platform of the People's Party, but as resolutions expressive of the sentiment of this Convention:

1. RESOLVED, That we demand a free ballot and a fair count in all elections, and pledge ourselves to secure it to every legal voter

without Federal intervention, through the adoption by the States of the unperverted Australian or secret ballot system.

2. Resolved, That the revenue derived from a graduated income tax should be applied to the reduction of the burden of taxation now levied upon the domestic industries of this country.
3. Resolved, That we pledge our support to fair and liberal pensions to ex-Union soldiers and sailors.
4. Resolved, That we condemn the fallacy of protecting American labor under the present system, which opens our ports to the pauper and criminal classes of the world and crowds out our wage-earners; and we denounce the present ineffective laws against contract labor, and demand the further restriction of undesirable emigration.
5. Resolved, That we cordially sympathize with the efforts of organized workingmen to shorten the hours of labor, and demand a rigid enforcement of the existing eight-hour law on Government work, and ask that a penalty clause be added to the said law.
6. Resolved, That we regard the maintenance of a large standing army of mercenaries, known as the Pinkerton system, as a menace to our liberties, and we demand its abolition; and we condemn the recent invasion of the Territory of Wyoming by the hired assassins of plutocracy, assisted by Federal officers.
7. Resolved, That we commend to the favorable consideration of the people and the reform press the legislative system known as the initiative and referendum.
8. Resolved, That we favor a constitutional provision limiting the office of President and Vice-President to one term, and providing for the election of Senators of the United States by a direct vote of the people.
9. Resolved, That we oppose any subsidy or national aid to any private corporation for any purpose.
10. Resolved, That this convention sympathizes with the Knights of Labor and their righteous contest with the tyrannical combine of clothing manufacturers of Rochester, and declare it to be a duty of all who hate tyranny and oppression to refuse to purchase the goods made by the said manufacturers, or to patronize any merchants who sell such goods.

The Cattle Drive

4.[1] Though the producer sometimes takes his own cattle to the northern markets, they are usually taken by a special drover. Taking contracts to deliver stock-cattle to fill specified requirements of number, age, sex, and condition, young cattle to be grazed to maturity or young cows for breeding, or to deliver beeves (i.e. steers and dry

[1] *Tenth Census of the United States, vol. iii. Report of Agriculture as Returned at the Tenth Census* (1880). *Report on Cattle, Sheep and Swine,* pp. 19–20.

cows) for Indian agencies, packing-houses, and other slaughter, or, planning for his own account, to put on the trail what will answer profitably the demands he believes will arise, the drover, early in the year, goes to that region of the state where he expects to find suitable stock and visits the various ranches. Having bought the cattle and arranged with the sellers to deliver his purchases on a fixed day at a certain point, he goes to some horse ranch and buys such a lot of horses as shall carry his drove through, say 40 horses for each average drove of 2,300 to 2,500 cattle. He also engages about a dozen cowboys for each such drove, at the rate of $25 to $30 per month, and a "boss" drover as captain and field manager of the stock, equipment, and men, at $90 per month. Having made these engagements, and purchased camp-wagon, team (four mules or four oxen), cooking utensils, and other necessaries of an outfit, he is ready to receive his purchases, only enough coming in at a time to make one drove, which is road-branded, and is then started out on the trail. So the deliveries go on until all his droves are under way. When first put on the road the cattle are closely guarded and driven briskly for several days, until the danger of their breaking away for home is passed. For the first few days at sunset the drove is "rounded up" compactly, and half of the men, relieved by the other half at midnight, ride round and round the bed-ground. This labor decreases as the cattle become tractable, and two men at each watch are then sufficient to guard them through the night. The ordinary order of march is the foreman ahead, searching for camping place with grass and water; the drove drifting onward in the shape of a wedge, the strong few stretching out to a sharp point in front, then the line growing thicker and wider, until in the butt end is crowded the mass. On each side of the lead rides a man on "point," that is, to direct the column. Back where the line begins to swell ride two more at "swing," further back ride two at "flank," and the remainder are on "drag" (i.e. about the rear), to push on the march. These positions give *cowboy rank*. The "greenhorns" or "tender-feet" serve at "drag," while the cowboys experienced in driving hold the places at "point," the post of honor. These distinctions are observed at mess and bed. One man drives the horse herd apart from the line of cattle, or, with large bands, two men are employed. The distance traveled each day is 12 or 15 miles, according to grass and water. At daybreak the cattle are moved off the "bed-ground" to graze, and while the two men who were last on guard remain with them all other hands breakfast. The first to finish breakfast relieve the guards on duty and allow them to come in for their morning meal. Then, the horses being caught and saddled, and the cook having cleaned up, the drive is started and continued until about eleven, when the cattle are allowed to graze again, and lunch or dinner is eaten. Immediately after that the men who are to stand first guard that night, and who also act as horse-herders, go on ahead with the mess-wagon and the horses to the next camp, where they get supper, so that when the herd comes up they are ready to "graze,"

and hold it until the first relief of the night. The bed-ground is, when possible, on an elevation, with space sufficient for all the stock to sleep. The men off guard roll themselves in their blankets without removing their clothing and lie down on the ground near the camp-fire to sleep.

These are the ordinary details of a drive from Texas. Departures are made from this custom according to circumstances and the different degrees of skill of drovers. A herd traveling with calves cannot make 12 miles per day. A "mixed" herd—that is, one made up of various ages and of both sexes—is the easiest to control; a beef-herd of four-year-olds is the most difficult. The slightest disturbance at night may stampede them. The first symptom of alarm is snorting. Then, if the guards are numerous and alert, so that the cattle cannot easily break away, they will begin "milling," i.e., crowding together with their heads toward a common center, their horns clashing, and the whole body in confused rotary motion, which increases, and, unless controlled, ends in a concentrated outbreak and stampede. The most effectual way of quieting the cattle is by the cowboys circling around and around the terrified herd, singing loudly and steadily, while, too, the guards strive to disorder the "milling" by breaking up the common movement, separating a bunch here and there from the mass and turning them off, so that the sympathy of panic shall be dispersed and their attention distracted as it is in part, no doubt, by the singing. The somber surroundings of a wild country at night, with the accompanying strange sounds—the tramp, the clashing of horns, the bellowings of alarm, and the shouted song of the cowboys—are very weird.

The cattle business of the interior was dimly suggested in the experience of the ox-teams of the Mormons in 1847 and of the California gold-seekers soon after. Up to that time there was no definite movement for cattle-raising in the far west. In a little more than thirty years stock-raising has become a business west of the 95th meridian, producing in 1880 between $225,000,000 and $250,000,000, not only aiding greatly in the supply of food for our own people but adding largely to the food available for export.

The Frontier (1870-1890)

1870

5.[1] During the decade from 1860 to 1870 a number of territorial changes have been effected in the extreme west. A great tract stretching into Arctic regions and containing few people was purchased in 1867 from Russia and is called Alaska. Arizona, Colorado, Dakota, Idaho, Montana, Nevada, and Wyoming have been organized as territories. Kansas, Nebraska, and Nevada have been admitted as states.

[1] *Report of the Population of the United States at the Eleventh Census: 1890*, part i, pp. 25–28.

West Virginia has been cut off from the mother commonwealth and made a separate state.

In 1870 we note a gradual and steady extension of the frontier line westward over the great plains. The unsettled areas in Maine, New York, and Florida have not greatly diminished, but in Michigan the extension of the lumber interests northward and inward from the lake shore has reduced considerably the unsettled portion. On the upper peninsula the settlements have increased somewhat, owing to the discovery of the rich iron deposits destined to play so important a part in the manufacturing industry of the country.

Settlement has spread westward to the boundary of the state in southern Minnesota, and up the Big Sioux river in southeastern Dakota. Iowa is entirely reclaimed, excepting a small area of perhaps 1,000 square miles in its northwestern corner. Through Kansas and Nebraska the frontier line has moved steadily westward, following in general the courses of the larger streams and of the newly constructed railroads. The frontier in Texas has changed but little, that little consisting of a general westward movement. In the Cordilleran region settlements have extended but slowly. Those upon the Pacific coast show little change, either in extent or in density. In short, we see everywhere the effects of the war in the partial arrest of the progress of development.

The settlements in the west, beyond the frontier line, have arranged themselves mainly in three belts. The most eastern of these is located in central Colorado, New Mexico, and Wyoming, along the eastern base of and among the Rocky mountains. To this region settlement was first attracted in 1859 and 1860 by the discovery of mineral deposits, and has been retained by the richness of the soil and by the abundance of water for irrigation, which have promoted the agricultural industry.

The second belt of settlement is that of Utah, settled in 1847 by the Mormons fleeing from Illinois. This community then differed, and still differs, radically from that of the Rocky mountains, being essentially agricultural, mining having been discountenanced from the first by the church authorities, as tending to fill the "Promised land" with Gentile adventurers, and thereby imperil Mormon institutions. The settlements of this group, as seen on the map for 1870, extend from southern Idaho southward through central Utah, and along the eastern base of the Wasatch range to the Arizona line. They consist mainly of scattered hamlets and small towns, about which are grouped the farms of the communities.

The third strip is that in the Pacific states and territories, extending from Washington territory southward to southern California and eastward to the system of "sinks," in western Nevada. This group of population owes its existence to the mining industry. Originated in 1849 by a great immigration movement, it has grown by successive

impulses as new fields for rapid money getting have been developed. Latterly, however, the value of this region to the agriculturist has been recognized, and the character of the occupations of the people is undergoing a marked change.

These three great western groups comprise nine-tenths of the population west of the frontier line. The remainder is scattered about in the valleys and the mountains of Montana, Idaho, and Arizona, at military posts, isolated mining camps, and on cattle ranches.

The frontier line in 1870 embraces 1,178,068 square miles, all between 270° 15′ and 47° 30′ north latitude, and between 67° and 99° 45′ west longitude. From this, however, deduction is to be made of 37,739 square miles on account of interior spaces containing no population. To what remains we must add 11,810 square miles on account of settled tracts east of the one hundredth meridian, lying outside of the frontier line, and 120,100 square miles on account of settlements in the Cordilleran region and on the Pacific coast, making the total area of settlement for 1870 not less than 1,272,239 square miles, the aggregate population being 38,558,371, and the average density of settlement 30.31 to the square mile.

1880

In 1880 we find that during the decade Colorado has been added to the sisterhood of states. The first point that strikes us in examining the map showing the areas of settlement at this date, as compared with previous ones, is the great extent of territory which has been brought under occupation during the past ten years. Not only has settlement spread westward over large areas in Dakota, Nebraska, Kansas, and Texas, thus moving the frontier line of the main body of settlement westward many scores of miles, but the isolated settlements of the Cordilleran region and of the Pacific coast show enormous accessions of occupied territory.

The migration of farming population to the northeastern part of Maine has widened the settled area to a marked extent, probably more than has been done during any previous decade. The vacant space in the Adirondack region of northern New York, has been lessened in size, and its limits have been reduced practically to the actual mountain tract. The most notable change, however, in New England and the middle states, including Ohio and Indiana, has been the increase in density of population and the migration to cities, with the consequent increase of the urban population, as indicated by the number and the size of the spots representing these cities on the map. Throughout the southern states there is to be noted, not only a general increase in the density of population and a decrease of unsettled areas, but a greater approach to uniformity of settlement throughout the whole region. The unsettled area of the peninsula of Florida has decreased decidedly, while the vacant spaces heretofore seen along the upper

coast of Florida and Louisiana have entirely disappeared. Although the Appalachian Mountain system is still distinctly outlined by its general lighter color on the map, its density of population more nearly approaches that of the country on the east and on the west. In Michigan there is seen a very decided increase of the settled region. Settlements have not only surrounded the head of the lower peninsula, but they leave only a very small body of unsettled country in the interior. In the upper peninsula the copper and the iron interests, and the railroads which subserve them, have peopled quite a large extent of territory. In Wisconsin the unsettled area is rapidly decreasing as railroads stretch their arms out over the vacant tracts. In Minnesota and in eastern Dakota the building of railroads, and the development of the latent capabilities of this region in the cultivation of wheat, have caused a rapid flow of settlement, and now the frontier line of population, instead of returning to Lake Michigan, as it did ten years ago, meets the boundary line of the British possessions west of the ninety-seventh meridian. The settlements in Kansas and Nebraska have made great strides over the plains, reaching at several points the boundary of the humid region, so that their westward extension beyond this point is to be governed hereafter by the supply of water in the streams. As a natural result, we see settlements following these streams in long ribbons of population. In Nebraska these narrow belts have reached the western boundary of the state at two points: one upon the South Platte and the other upon the Republican river. In Kansas, too, the settlements have followed the Kansas river and its branches and the Arkansas nearly to the western boundary of the state. Texas also has made great strides, both in the extension of the frontier line of settlement and in the increase in the agricultural interests. The heavy population in the prairie regions of the state is explained by the railroads which now traverse them. In Dakota, beside the agricultural region, in the eastern part of the territory, we note the formation of a body of settlement in the Black Hills, in the southwest corner, which, in 1870, was a part of the reservation of the Sioux Indians. This settlement is the result of the discovery of valuable gold deposits. In Montana there appears a great extension of the settled area, which, as it is mainly due to agricultural interests, is found chiefly along the courses of the streams. Mining has, however, played not a small part in this increase in settlement. Idaho, too, shows a decided growth from the same causes. The small settlements which, in 1870, were located about Boise city, and near the mouth of the Clearwater, have now extended their areas to many hundreds of square miles. The settlement in the southeastern corner of the territory is almost purely of Mormons, and has not made a marked increase.

Of all the states and territories of the Cordilleran region Colorado has made the greatest stride during the decade. From a narrow strip of settlement, extending along the immediate base of the Rocky moun-

tains, the belt has increased so that it comprises the whole mountain region, beside a great extension outward upon the plains. This increase is the result of the discovery of very extensive and very rich mineral deposits about Leadville, producing a "stampede" second only to that of 1849 and 1850 to California. Miners have spread over the whole mountain region, till every range and ridge swarms with them. New Mexico shows but little change, although the recent extension of railroads in the territory and the opening of mineral resources promise in the near future to add largely to its population. Arizona, too, although its extent of settlement has increased somewhat, is but just commencing to enjoy a period of rapid development, owing to the extension of railroads and to the suppression of hostile Indians. Utah presents us with a case dissimilar to any other of the territories—a case of steady, regular growth, due almost entirely to its agricultural capabilities, as was noted previously. This is due to the policy of the Mormon church, which has steadily discountenanced mining and speculation in all forms, and has encouraged in every way agricultural pursuits. Nevada shows a slight extension of settlement due mainly to the gradual increase in the agricultural interest. The mining industry is probably not more flourishing at present in this state than it was ten years ago, and the population dependent upon it is, if anything, less in number. In California, as the attention of the people has become devoted more and more to agricultural pursuits, at the expense of the mining and cattle industries, we note a tendency to a more even distribution of the inhabitants. The population in some of the mining regions has decreased, while over the area of the great valley, and in the fertile valleys of the coast ranges it has increased. In Oregon the increase has been mainly in the section east of the Cascade range, a region drained by the Des Chutes and the John Day rivers, and by the smaller tributaries of the Snake, a region which, with the corresponding section in Washington territory, is now coming to the front as a wheat-producing district. In most of the settled portions here spoken of irrigation is not necessary for the cultivation of crops, and consequently the possibilities of the region in the direction of agricultural development are very great. In Washington territory, which in 1870 had been scarcely touched by immigration, we find the valley west of the Cascade mountains tolerably well settled throughout, while the stream of settlement has poured up the Columbia into the valleys of the Wallawalla and the Snake rivers and the great plain of the Columbia, induced thither by the facilities for raising cattle and by the great profits of wheat cultivation.

The length of the frontier line in 1880 is 3,337 miles. The area included between the frontier line, the Atlantic and the Gulf coast, and the northern boundary is 1,398,940 square miles, lying between 26° and 49° north latitude and 67° and 102° west longitude. From this must be deducted, for unsettled areas, as follows:

	Square miles
Maine	12,000
New York	2,200
Michigan	10,200
Wisconsin	10,200
Minnesota	34,000
Florida	20,800

making a total of 89,400 square miles, leaving 1,309,540 square miles.

To this must be added the isolated areas in the Cordilleran region and the extent of settlement on the Pacific coast, which amount, in the aggregate, to 260,025 square miles, making a total settled area of 1,569,565 square miles. The population is 50,155,783, and the average density of settlement 31.96 to the square mile.

1890

This census completes the history of a century; a century of progress and achievement unequaled in the world's history. A hundred years ago there were groups of feeble settlements sparsely covering an area of 239,935 square miles, and numbering less than 4,000,000. The century has witnessed our development into a great and powerful nation; it has witnessed the spread of settlement across the continent until not less than 1,947,280 square miles have been redeemed from the wilderness and brought into the service of man, while the population has increased and multiplied by its own increase and by additions from abroad until it numbers 62,622,250.

During the decade just past a trifling change has been made in the boundary between Nebraska and Dakota by which the area of Nebraska has been slightly increased. Dakota territory has been cut in two and the states of North Dakota and South Dakota admitted. Montana, Wyoming, Idaho, and Washington have also been added to the sisterhood of states. The territory of Oklahoma has been created out of the western half of the Indian territory, and to it has been added the strip of public land lying north of the panhandle of Texas.

The most striking fact connected with the extension of settlement during the past decade is the numerous additions which have been made to the settled area within the Cordilleran region. Settlements have spread westward up the slope of the plains until they have joined the bodies formerly isolated in Colorado, forming a continuous body of settlement from the east to the Rocky mountains. Practically the whole of Kansas has become a settled region, and the unsettled area of Nebraska has been reduced in dimensions to a third of what it was ten years ago. What was a sparsely settled region in Texas in 1880 is now the most populous part of the state, while settlements have spread westward to the escarpment of the Staked Plains. The unsettled regions of North Dakota and South Dakota have been reduced to half their former dimensions. Settlements in Montana have spread

until they now occupy one-third of the state. In New Mexico, Idaho, and Wyoming considerable extensions of area are to be noted. In Colorado, in spite of the decline of the mining industry and the depopulation of its mining regions, settlement has spread, and two-thirds of the state are now under the dominion of man. Oregon and Washington show equally rapid progress, and California, although its mining regions have suffered, has made great inroads upon its unsettled regions, especially in the South. Of all the western states and territories Nevada alone is at a standstill in this respect, its settled area remaining practically the same as in 1880. When it is remembered that the state has lost one-third of its population during the past ten years, the fact that it has held its own in settled area is surprising until it is understood that the state has undergone a material change in occupations during the decade, and that the inhabitants, instead of being closely grouped and engaged in mining pursuits, have become scattered along its streams and have engaged in agriculture.

Settlement is spreading with some rapidity to Maine, its unsettled area having dwindled from 12,000 to about 4,000 square miles. The unsettled portion of the Adirondack region in New York has also diminished, there being now but 1,000 square miles remaining. The frontier has been pushed still further southward in Florida, and the unsettled area has been reduced from 20,800 to 13,000 square miles.

Lumbering and mining interests have practically obliterated the wilderness of Michigan and have reduced that of Wisconsin to less than one-half of its former area. In Minnesota the area of the wild northern forests has been reduced from 34,000 to 23,000 square miles. The population is 62,622,250, and the average density of settlement 32.16 to the square mile.

The Influence of the Disappearance of Free Land

6.[1] The last thirty years have witnessed a growing recognition of the great influence of the West in the country's history. Essentially this influence has meant that of having within our continental borders a vast area of rich, varied, and undeveloped natural resources obtainable for little or nothing. Probably no other factor has had broader ramifications or greater importance in shaping our political, our economic, and our social history. Certainly in our economic history, from the first settlement down to the close of the nineteenth century, nothing exercised a more predominant influence than this vast supply of relatively free and undeveloped land, the essential economic significance of which consisted in cheap natural resources. It was this which more than anything else differentiated the underlying economic conditions in the United States from those in the nations of western Europe. It was this factor which determined the predominance of

[1] Wright, Chester W., "The Disappearance of Free Land in Our Economic Development," *American Economic Review*, vol. xvi, no. i, Supplement (March, 1926), pp. 265–271. Used by permission of the author and editors.

the extractive industries among our economic activities, had an important influence in fixing the lines of manufacturing, developed and largely shaped the content and direction of our foreign trade, to say nothing of the reactions upon our transportation system, our monetary and banking history, and numerous other phases of our economic development. It was these resources, combined, first, with the growth of population, much of which was chiefly due to the economic opportunity created by these resources which attracted millions to our shores, and, second, with the progress in science and invention which, during the nineteenth century, made available for the development of these resources facilities theretofore undreamed of, that chiefly explains the phenomenal material progress of the nation since it attained independence. That economic development was such as to raise the nation in a relatively brief period of time from a position of insignificance to that of the richest and economically the most powerful nation on earth. In absolute, if not in relative, growth the history of the world affords no parallel.

But now the situation has changed; the supply of free fertile land has been exhausted, the frontier has disappeared, the great westward movement of population has almost ceased. The preliminary process of opening up the virgin resources of the country is practically finished. The change did not occur suddenly and no specific date can be fixed upon to mark it, but the consensus of opinion appears to place it around 1890. If this be correct, I wish to venture the prophecy that future students of our economic development, writing with the better perspective of a quarter-century from now will view this change as marking the end of one great epoch in our economic history, and the opening of the twentieth century as commencing a new epoch in which the influence of the West dwindles and new conditions, problems, and tendencies become dominant.

In justification of this assertion I wish briefly to enumerate some of the more important tendencies and reactions in our economic development which seem likely to follow from the disappearance of free land. However, in so doing, I wish to emphasize the point that these are simply tendencies which may be either offset or accentuated by other forces. I do not for a moment claim that these tendencies, many of which are already in evidence, are solely due to the disappearance of free land; in practically every case there are other factors tending in the same direction, sometimes of even greater influence than this. For the most part these tendencies have already been observed and commented upon, but chiefly by those only concerned with some one phase of our economic life rather than its whole scope. There is little that is novel in the list. I shall simply attempt a hasty enumeration, with little explanation or proof; my purpose being rather by gathering these tendencies together to indicate their wide ramifications and fundamental significance in our economic development as a whole.

Naturally it is in the field of the extractive industries, particularly agriculture, that the tendencies resulting from the disappearance of free land are most obvious and important. The rate of expansion in agriculture will be checked; except as aided by science, growth will become more difficult. Already in value of output and number of gainfully employed this activity has given way to manufacturing as our leading pursuit. We have ceased to be a nation of farmers. As farm products and farm lands rise in value more intensive agriculture, greater use of scientific methods, and a more capitalistic type of farming will come into use; tenant farming may increase; more land will be reclaimed through irrigation or drainage; and there will be greater pressure for opening up Indian and forest reservations. The conservation movement will gather momentum. The one-crop system will tend to give way to rotation of crops and greater diversification thus promoting greater stability. A similar result will follow from the growing tendency to produce products for domestic rather than foreign consumption and from the lessened pressure on eastern farms of newly opened land in the West. The speculative tendencies, overcapitalization of land values, and heavy indebtedness with the resulting pressure to mine the soil, attendant upon rapidly opened up lands, will be less in evidence as our farming becomes more settled.

In the field of manufacturing the reactions are less direct and important, yet not insignificant. As the demand for labor and capital for the opening up of new farming land declines, a greater portion of the available supply of these factors of production will be available for manufacturing and other activities, though this will be partially offset by the larger amount required by the more intensive type of agriculture. On the other hand many of our most important lines of manufacturing have been built up on the basis of our cheap and abundant supply of natural resources; our farms still supply by far the greater portion of the domestic raw materials used in manufacturing. As the rate of increase in this supply of raw materials may be checked or an absolute decrease take place when no new sources are available to be opened up, while the cost of obtaining raw material from the sources already developed tends to increase, one of the great advantages enjoyed by our manufacturing industries will become less marked. Though improved technological and business methods may counteract this tendency, such improvements will also be available in other countries which still possess virgin natural resources.

In the field of our foreign trade far-reaching changes are likely to take place. Our exports of raw materials and foodstuffs will become less important and the exports of manufactures more important. Conversely, in the import trade the proportion of food stuffs and raw materials will increase and that of manufactures may decline. Such shifts will greatly alter the course of this trade; relatively less will be with Europe; relatively more with the other continents. To the close of the nineteenth century our foreign trade was largely com-

plementary to that of the nations of western Europe; in the future it will tend increasingly, both as regards exports and imports, to duplicate and to compete with the trade of those nations in the markets of the other continents. Its expansion may therefore become more difficult. Obviously, too, these changes may involve alterations in our protective tariff. As imports of products competing with our farm products take the place of exports an increasing number of the farmers' crops may actually benefit by protective duties, as few of importance have in the past; and the agricultural interests will doubtless be more insistent in their demand for protective duties. On the other hand it is quite likely that an increasing number of manufacturers, especially those engaged in the export trade, will seek to have duties lowered and that in this they will be joined by the growing group of international bankers.

In the field of finance the reactions are less significant, yet a few may be noted. The scarcity of capital, the relatively heavy indebtedness and the consequent demands for cheap money and easy credit which are typical of a new and rapidly developing country are phenomena which are only too abundantly illustrated in our monetary and banking history. We may hope that in the future they will be somewhat less prominent. In our past the fluctuations of the business cycle, excepting those which were the aftermath of wars, have been closely connected with the speculative activities attendant upon the rapid opening up of our undeveloped resources. For the future we may hope that the influence of this aggravating factor in the cyclical swings will be greatly modified. So long as undeveloped resources created a greater demand for capital than domestic accumulations could supply, capital was scarce, we borrowed heavily from abroad and were a debtor nation. Now, with a relatively lessened domestic demand and unprecedented annual additions to the supply, our capital is relatively cheaper, and it is flowing out to other lands and we have become a creditor nation. Momentarily the needs of Europe dominate both the volume and direction of this flow; eventually a larger portion will seek outlet in the other less developed continents in the exploitation of which it will come into competition with the surplus funds of other nations.

Certain of the tendencies noted above will involve important changes in our international economic relations and policies. As we increasingly compete with the nations of western Europe for raw materials, for food stuffs, for markets for manufactures, and for opportunities to invest capital, international economic rivalries will be accentuated, the spirit of economic imperialism will grow in power, dollar diplomacy will be more in evidence, and a growing number of economic ties will bind the course of our economic and political life to that of the rest of the world. Whether we like it or not a policy of isolation is a thing of the past. We may well pause to consider the possible effects of the new position in which these altered economic relationships will

place this nation. As a powerful economic competitor, as a wealthy creditor flaunting our riches in the face of debt-burdened nations who must pay us yearly tribute, how many friends among the powerful nations of the world shall we be able to count upon in case of need? That peace and a spirit of amity shall prevail in the world will concern us in the future more than at any time since we became a great power.

Another group of tendencies resulting from the disappearance of free land may be noted in the case of labor and the growth and movements of our population. In the past the outlet provided by free farms together with the relatively high productivity of labor, no small portion of which was due to the cheapness of our natural resources, have been important factors in keeping up the high level of wages. In the future this influence will be less marked. Thus an added impetus may be given to the labor movement. As the free land has been taken up, the westward movement of population has rapidly declined in importance. As the number of those engaged in agriculture increased less rapidly than the number engaged in industry and commerce, the movement to urban centers was accentuated. The last census showed that more than half of the population was living in urban centers and that there was actually a decrease in the absolute number living in strictly rural sections. Thus all the problems connected with urban life will become accentuated. When the country was relatively undeveloped and weak we welcomed the inflow of immigrant labor to aid in its development. Now that we are strong, free land has disappeared and there is more danger that a continued influx might depress wages and increase the difficulties of assimilation, we the more readily adopt a policy of severe restriction. Such restriction of immigration combined with minor influences such as a possible growth of emigration and a possible increase in the price of food will tend to check the rate of growth of our population.

Finally, I would note a few of the reactions on our social and political life which may also prove significant in our economic development. The free undeveloped regions of the West have provided an outlet for the restless and discontented. With an environment essentially democratic, lacking old institutions and numerous powerful vested interests, the West has tended to be progressive if not radical, though the reforms sought only partially coincided with those demanded by industrial workers to the east. As time passes and their agriculture becomes more stable, we may expect the farming sections of the West to assume more of the conservatism typical of the older farming regions in the East. Increasingly the more radical groups will be found in the industrial and commercial centers. In the past, although the rise of capitalistic industry has tended to sharpen the lines between labor and capital and to accentuate class consciousness, the nation as a whole has not been divided along these lines. There has always been a large third group, the economic interests of which coincide

neither with those of labor nor with those of capital. The mediating influence of this third group has been of great importance in modifying class conflicts and promoting social and political stability. But in this third group the agricultural class has been the largest element. As this class declines in importance while that of the industrial wage earners steadily gains, the mediating influence of this third group will decrease and with a larger portion of the population lined up on the side of either capital or labor, that struggle will become more acute.

The frontier has been the nursery of individualism and democracy, economic, political, and social; its impress on our ideals and institutions is well recognized. In the future that influence will decline. As the urban population grows and the rural population becomes denser, as we live closer together and in steadily growing interdependence so that the actions of each become of greater concern to all, the social point of view will be more readily accepted and the individualistic, laissez faire policy will be modified by an increasing measure of social control. With the economic opportunity provided by free land no longer available the insistent demand for greater equality of economic opportunity may force further alterations in our economic life. At the same time the greater density of population will further the closer contacts, the opportunities for co-operation, and the institutions dependent upon local concentration of wealth which are so vital to social progress.

While other reactions might be named, this list must suffice for the present. And in bringing this enumeration to a close, I must repeat the warning given at the start that by merely listing these reactions without careful analysis or qualifications of each I doubtless have given a considerably exaggerated impression of the influence that can fairly be attributed to the disappearance of the supply of free fertile land. In particular there are two ways by which my presentation has tended to produce such an exaggeration. First, I have made no mention of numerous other factors tending to bring about similar reactions, many of great influence, among which those furthering the development of our manufacturing industries are particularly prominent, nor of still other factors which may counteract these tendencies. In some cases, too, the tendencies themselves will counteract one another. Second, after all, it is cheap land rather than free land that has been the great influence in our economic development, and the fact that free land has vanished does not mean that all our natural resources have suddenly become dear. The important thing is that they will tend to become dearer, how rapidly depending chiefly upon our own growth, the development of other countries, and the progress of science.* Yet

* It is certainly a striking fact that during the half-century preceding 1920 the average value of farm land and buildings per acre rose from $11.14 to $19.81, a gain of only $8.67, while in the single decade that followed there was a gain of $19.79. Changes in the general price level account for only a small portion of this rise.

allowing for this exaggeration I would still argue that the tendencies set in motion by the disappearance of the supply of free fertile land are of such importance and have such broad ramifications as to justify the claim that this event marks a turning point in the history of our economic development. If the objection be raised that economic development is typically evolutionary rather than revolutionary so that drawing sharp lines to mark off epochs is wholly arbitrary, I must admit that such is certainly true of this change, though I believe that marked reactions chiefly traceable to this change are already in evidence and that the concept of epochs, properly used, has pedagogical value.

But whether we say this change marks the beginning of a new epoch or the beginning of a new trend in our economic development is a matter of slight consequence. After all the important point that I wish to make in concluding is this. If we agree that the disappearance of free land marks a change which in the course of time is destined to have widespread and important reactions upon our economic development then it is of the utmost importance that we should stop and consider what in the long run this will mean for the United States as a nation and for the well-being of its people. As one looks back over the history of nations one of the most striking things is the lack of ability on the part of leaders to look ahead into the future, forecast the probable trend of events, and endeavor to guide the nation accordingly. Shortsighted, opportunistic policies seem to dominate until one wonders whether the fate of nations is anything more than the plaything of temporizing and chance. Admittedly forecasting the developments of even the immediate future is most difficult in this age when the cumulative effects of scientific knowledge bring changes with astounding rapidity. The task requires the highest qualities of scientific imagination. In this particular case it involves an analysis of the probable trend of development in the United States as affected by other forces as well as that of the disappearance of free land; it also involves a study of the probable trend of developments in the rest of the world and particularly of the conditions affecting the cost of natural resources in other countries. The difficulties confronting one may seem overwhelming; yet the vital importance of the problem for the future of the country and its people certainly justifies the attempt to study it. For such study the student of economic history is particularly equipped; to him the problem should be a great challenge to public service.

The Position of the United States as an Agricultural Nation

7.[1] Four Countries are preëminent in quantity of agricultural production—the United States, Russia, China, and India—and at present

[1] Baker, O. E., "A Graphic Summary of American Agriculture Based Largely on the Census of 1920," *Yearbook of the Department of Agriculture, 1921,* pp. 407–408, Washington, 1922.

the production of the United States is considerably greater than that of any other nation. The aggregate value (United States value) of the agricultural products of the Russian Empire just prior to the war was only about two-thirds that of our Nation, while the production of foods and fibers in China, which can only be guessed at, is probably also about two-thirds and certainly not over three-fourths that of the United States. The agricultural production in India is less than half that of our Nation. Only the British commonwealth of nations as a whole—India, Australia, New Zealand, South Africa, Canada, and the British Isles—approaches the United States in quantity of agricultural production, with an aggregate about nine-tenths that of the United States.

The United States is not only the leading nation in agricultural production, but also it leads all nations in exports of agricultural products. The teeming populations of China and India require practically all the food produced and most of the fiber for home consumption, but in normal times Russia has ranked with the United States in value of agricultural exports. War, revolution, and crop failure, however, have transformed Russia into a nation unable to feed its own people. Since the war the value of agricultural exports from the United States has exceeded the aggregate value of those from all other nations in the world. Yet the agricultural exports of the United States at present are only one-eighth of its production.

This vast agricultural production of the United States requires the labor of about one-quarter of our gainfully employed population, whereas 85 per cent of the population of Russia is classed as agricultural, and probably three-fourths of the people of China and of India derive their support from agricultural pursuits. Six and a half million farmers in the United States, assisted by a somewhat smaller number of farm laborers, probably less than 4 per cent of the farmers and farm laborers of the world, produce nearly 70 per cent of the world's corn, 60 per cent of the world's cotton, 50 per cent of the world's tobacco, about 25 per cent of the world's oats and hay, 20 per cent of the world's wheat and flaxseed, 13 per cent of the world's barley, 7 per cent of the world's potatoes, and 5 per cent of the world's sugar, but only about 2 per cent of the world's rye and rice. Totaling the cereals on the basis of tons, and estimating the production of China as somewhat larger than that of India, it appears that the United States produces about one-fourth of the world's cereal crops. The average production of cereals per person engaged in agriculture in the United States is 12 tons, while for the rest of the world it is only about 1.4 tons.

Nevertheless, the agricultural production of the United States is no longer keeping pace with our increasing population. The peak of production per capita of the total population was reached about 1906 or 1907, and although the decrease in per capita production since has been very slow and is yet very small, it is clearly apparent.

This failure of agricultural production to increase as rapidly as population is not due primarily to the decrease in the proportion of our population engaged in agriculture from over 13 per cent in 1910 to about 10 per cent in 1920, according to the census returns, for the acreage of crops per person engaged in agriculture was, apparently, 25 per cent greater in 1920 than in 1910; but, instead, is owing mostly to a notable decrease in the rate of expansion of our arable area. Improved land increased only 5 per cent from 1910 to 1920, as compared with 15 to 50 per cent in previous decades, and this 5 per cent increase was practically confined to the precariously productive semi-arid lands of the Great Plains region. The land in the United States suitable for agricultural use without irrigation, drainage, or heavy fertilization is nearly all occupied. Consequently, one of the great questions before the American people is how to maintain the supply of foods and fibers for the increasing population at that high level to which we are accustomed,—should we cultivate the present area of arable land more intensively, or, like England, depend upon imports from foreign countries, or should the Nation embark upon extensive projects of reclamation?

Agricultural Regions, 1921

8.[1] The United States may be divided into an eastern and a western half, characterized, broadly speaking, one by a sufficient and the other by an insufficient amount of rainfall for the successful production of crops by ordinary farming methods. The North Pacific coast and several districts in California and in the northern Rocky Mountain region constitute exceptions to this statement. The transition zone which separates the East from the West lies, in general, along the one hundredth meridian, the average annual precipitation increasing in this zone from about 15 inches at the Canadian boundary to 25 inches in southern Texas, where the evaporation is much greater and the rainfall more torrential. The East is a region of humid climate farming, based upon tilled crops, small grains, and tame hay and pasture; the West, of wild hay and grazing, dry farming, winter crops in certain localities, and irrigation farming, with only limited areas of ordinary farming under humid conditions such as characterize the East.

The East and West may each be divided into six agricultural regions. In the East, precipitation being usually sufficient, the classification is based largely on temperature and the crops grown, while in the West rainfall and topography are the important factors. In the East the agricultural regions extend for the most part east and west, following parallels of latitude; while in the West the regions are determined by the mountain ranges and extend north and south. Agri-

[1] Baker, O. E., "A Graphic Summary of American Agriculture Based Largely on the Census of 1920," *Yearbook of the Department of Agriculture, 1921,* pp. 413–415, Washington, 1922.

culture in the East varies primarily with latitude and soils, but in the West the principal factors are altitude and rainfall. The average elevation of the eastern half of the United States is less than 1,000 feet; that of the western half, over 4,000 feet.

In the East corn is the leading crop, constituting over one-quarter of the acreage and nearly 30 per cent of the value of all crops. It is grown in all the six eastern regions, but is dominant in the Corn Belt, and is very important in the Corn and Winter Wheat Region, and in the Cotton Belt. Along the Gulf of Mexico and the southern Atlantic coast the type of agriculture varies greatly from section to section—from rice farming to sugar cane growing and winter vegetable production, citrus fruit orcharding, and cattle ranching—so that the region is not named after any crop, but is called the "Subtropical Coast," because the warm water exerts a controlling influence upon climate and crops. In this eastern half of the United States there is scarcely any cotton grown outside the Cotton Belt, very little winter wheat outside the Corn and Winter Wheat Region and adjacent portions of the Corn Belt and Cotton Belt, and practically no spring wheat outside the Spring Wheat Region. Grass is of greatest importance in the Hay and Pasture Region, where in nearly every county hay and pasture occupy half or more of the improved land.

In the West hay is the leading crop, contributing nearly 37 per cent of the acreage and 26 per cent of the value of all crops in 1919, and the forage obtained by grazing is probably of almost equal value. Alfalfa is the leading hay crop in the Rocky Mountain and Arid Intermountain regions, wild grasses in the Great Plains Region, and grains cut green on the Pacific coast. Wheat contributed 21 per cent of the value of all crops, oats 3 per cent, barley 3 per cent, fruit and nuts 18 per cent, potatoes 4 per cent, and other vegetables 8 per cent in these six western regions. The value of all crops in the western regions, however, constituted in 1919 only 15 per cent of the total for the United States.

The contrast between the East and West is not as pronounced in live stock as in crops, except that swine are largely confined to the East, while sheep are much more important in the West. There is a marked distinction, however, in the manner of management, the live stock in the East being fed in the barnyards or fields with shelter at night, while in the West the stock is mostly grazed on the open range. In the East, the Hay and Pasture Region is primarily a dairy area, while the Corn Belt is the center of the beef-cattle and swine industry. In the West, the sheep are generally located in the more arid and the cattle in the less arid areas; while in the North Pacific Region, with its cool, moist climate, similar to that of the Hay and Pasture Region, dairying is again the dominant live-stock industry.

The farms, or "ranches," in the West are, in general, much larger in area than in the East. Owing to the low rainfall in the West, except in the North Pacific Region, the land outside the irrigated and dry-

farming districts is used mostly for grazing, and instead of 80 or 160 acres being sufficient to support a family, as in the East, 2,000 to 4,000 acres, or more, are commonly required. In the dry-farming areas half sections of land (320 acres) and sections (640 acres) are normal size farms. In the irrigated districts the farms are no larger in area than in the East. The 80 or 120 acre irrigated farms, however, are often worth as much as the 640 acre dry farms or the 3,000 acre stock ranches.

A larger proportion of the farms in the West are operated by their owners than in the East, owing, doubtless, to the cattle ranching, the more recent homestead settlement, and the larger proportion of fruit farms. The proportion of farms operated by tenants in the western regions ranges from 13 to 23 per cent, except in the California-Arizona Desert, where irrigated cotton farming increases the proportion to 33 per cent. In the East, on the other hand, over 30 per cent of the farms in the Corn and Winter Wheat Region are operated by tenants; in the Corn Belt over 40 per cent; and in the Cotton Belt over 60 per cent, owing in part to the plantation system and the large negro population. The Subtropical Coast and the Hay and Pasture regions, however, have only 27 per cent and 16 per cent, respectively, of the farms rented to tenants.

The geographic distribution of the rural and urban population is particularly interesting. The rural population is densest in the Cotton Belt, where cotton cultivation and picking require large amounts of hand labor and the acreage per laborer is small; also in the eastern portion of the Corn and Winter Wheat Region, where the rolling to hilly lands and lack of capital discourage extensive use of machinery. The rural population is much thinner in the Corn Belt and the Spring Wheat Region, and is thinnest in the West, except in the irrigated districts and the Pacific coast valleys. Urban population, on the other hand, is concentrated largely in the Hay and Pasture region of the Northeastern and Lake States, where large manufacturing and commercial cities provide a vast market for the nation's agricultural products.

Attitude Toward Tenancy in 1880

Relations to Our Political System

9.[1] It has already been shown that our agricultural history has been exceptional and intimately correlated with our political system. It has been the leading industry of the country from its settlement, while our people have been working out one of the greatest political problems the world has yet seen. Dangers to republican institutions come from cities and from aggregations of men in other vocations, and

[1] *Tenth Census of the United States, vol. iii. Report of Agriculture as Returned at the Tenth Census* (1880). *Report on the Cereal Production of the United States,* pp. 145–146.

the stability of our own government is most intimately connected with its agricultural system.

Our progress has been heretofore intimately correlated with our agriculture. What would have been the history of this country had its agriculture at the start been consigned to a peasantry, whether owning their own land, as in modern France, or a tenantry, as in Ireland, I will not attempt to say; but that the nation would not have been what it now is we can surely say. What it might have been we have an inkling of in some of the countries of this continent where the agriculture was consigned to a peasant class. Indeed, the wooden plow, and the primitive, non-progressive method it suggests, are still in use in at least one territory of the United States, where an ignorant peasantry tilled the soil before annexation, some of whom still live and perpetuate the methods of a previous age. The peasant system of old Spain, transmitted to New Spain, has left its effects as truly on the political history of Mexico as on its agricultural methods.

The agricultural features of political significance in this country are:

First, that we never had a peasantry in the sense in which that word is used in the Old World, and that we have no agricultural class. Whether a man tills the farm, practices law, preaches the gospel, manages a factory or a mine, is a matter of personal choice, and not of caste or class.

Second, that the tillers of the soil mostly own the lands they till, and get the benefits of the improvements they make and the wealth they create.

Third, that agricultural land has only an agricultural value; that its ownership confers no privileges and imposes no burdens which are not common to other forms of property; that it can be bought and sold as other property can; that its ownership is as absolute as that of other property, no more and no less.

On these three features are founded our strongest confidence in the stability of our political institutions and our brightest hopes for future progress.

The progressive element in a country like ours, and, indeed, in any country, is in that portion of its population which is neither very poor nor very rich. This is the stratum in which originates the most of that quality of intellect by which mankind has made its greatest achievements. From this class comes practically all of that kind of intellectual genius which manifests itself in literature, art, discovery, and invention, in business sagacity and social reform, and our agricultural system has been eminently adapted to breed and develop this class.

For the conservation of political institutions and the creation and preservation of material wealth it is best that as large a proportion of the whole population as is possible own real estate, particularly their own homes, and this our system of land tenure and land ownership

encourages. For peace and the suppression of the warlike impulses, as well as for thrift, it is best that as large a proportion as is possible of the population be at work for themselves, rather than for hire, and for this our agricultural system furnishes the opportunity. Also, that as large a proportion of the population as possible have facilities in their vocation for the education and rearing of families in virtue, intelligence, industry, and thrift.

For the last no other industrial occupation is so pre-eminent as farming, as it has been carried on in a larger part of this country. In no other vocation is there exercise for so great a variety of talent and so much sound judgment as on a farm growing a variety of crops, producing domestic animals, and using the latest machinery and devices. The causes which have placed an intelligent class on the farms have been sufficiently commented upon. This from the start gave a tone to the vocation in this country it has had nowhere else in the world, and has resulted in keeping the farmers more intelligent than any other men who have so much actual manual labor to perform.

Combining the offices of owner, overseer, and manager of the business with that of the skilled workman, he is at once employer and laborer. He must be personally familiar with a greater variety of manual operations than any other laboring man or mechanic is required to know; he must exercise his judgment in a greater variety of ways; must be a keener observer of nature and of nature's laws, and be brought in contact with a greater variety of things, animate and inanimate; and this from the nature of the vocation, with less contact with other business men than is the rule in other vocations. All this not only educates and trains his judgment, but gives him a certain robust independence of character and confidence in his opinions and beliefs which is of especial value to a man who is a voter. The industry is a notoriously conservative one; the very nature of the vocation makes it so; and this sturdy but intelligent conservatism has its especial value to our political institutions.

No other place is so favorable for the education of the young as the moderate-sized farm. Here the child has a greater variety of object-teaching than can possibly occur in any other common form of home life. There is so much to see that instructs: crops grow, animals must be reared, so many natural laws and natural phenomena are related to the work and the business, the seasons have more significance than that of mere heat and cold, and the weather means more than merely pleasant skies or gloomy days. In no other vocation can the child be so trained to habits of industry without detriment to his health or intelligence; no other is so well adapted to the sound education for intelligent and independent citizenship of the actually working portion of our population.

The very large proportion of men in this country who have become eminent in the various walks of life, who have originated on farms or plantations and received their early training there, is the natural result

of the influence of this vocation on the education and intellectual development of people who belong to an intelligent stock naturally.

Reasons in abundance might be given why this is so and must be so, and why, under our political and social system, it is undoubtedly better that as large a proportion as possible of its farm laborers should be independent farmers, conducting their own business, even if it be in an humble way, and educating their children into their vocation, than if the same number of men were employed on larger farms as employes, even though in that case better machinery might be used and a better organized system of labor might be practiced. The fact is, that the total agricultural production is increased by the subdivision into smaller farms, each managed by its owner.

A study of the tables of production will bring this out as no mere verbal description can, and will show that the great increase in grain production has been in the regions of moderate-sized farms—those small enough to admit of a close supervision by the owner and large enough to allow of the use of improved implements and machines. The agricultural and political welfare of our country is intimately related to, if not absolutely bound up in, the ownership and management of those farms which range in size from 80 to 320 acres—that is, from an eighth to a half section.

Attitude Toward Tenancy in 1923

Farm Ownership and Tenancy

10.[1] The general attitude toward the subject of land ownership and tenancy in this country has been determined by our very recent emergence from the pioneer stage of agricultural development. In that stage farm land was superabundant and its ownership easily acquired. There was little necessity for farmers to obtain the use of land by renting it from others, and those who continued long as tenants were largely of the less efficient and enterprising class. As land in the older communities became scarce, the more enterprising of the younger generation who were unlikely to inherit land pushed on to new regions where farm ownership could be easily acquired. The competition of the newer areas of virgin soil prevented an abnormal increase in the value of land in the older regions and made it relatively easy to achieve land ownership.

Largely as a result of these earlier conditions farm ownership by the farmer has come to be regarded as normal, and tenancy as abnormal. The increase of tenancy has been "viewed with alarm" by many people, and there has been a tendency to attribute in an indiscriminate manner to institutions of tenancy nearly all of the economic and social ills that manifest themselves in the rural com-

[1] Gray, L. C., Stewart, Charles L., Turner, Howard A., Sanders, J. T. and Spillman, W. J., "Ownership and Tenancy," *Yearbook of the Department of Agriculture, 1923,* pp. 507–515, Washington, 1924. The pictograms, notes and maps are omitted from this selection.

munity. Now that we have passed beyond the pioneer stage and have entered upon a more mature phase of national development, it is desirable to attempt to get a well-rounded conception of the significance of farm tenancy, which is by no means peculiar to the United States, but is found to some extent in all civilized nations, and particularly in English-speaking countries. Endeavoring, then, to approach the subject with an open mind, let us first take stock of the present extent and relative importance of the different classes of land tenure and trace briefly the recent trends with reference to land ownership and tenancy as shown by census and farm-survey statistics.

Relative Extent of Different Classes of Tenure—The United States as a Whole

Land is either owned by the farmer or rented under one or more of the various methods of leasing used in this country. There is some variation in the different States as to the legal rights and privileges involved in ownership, but these differences are incidental rather than of basic economic significance. There are also some differences as to the legal status of tenancy. But for the most part, the great contrasts in the form of tenure in different parts of the United States are economic rather than legal.

Some farm operators own all of the land they operate (owner farmers), others own none of it (tenants or croppers), and still others own part and rent part (part owners or owners additional). Sometimes farm operators employ managers to direct the business of farming. Our census statistics classify farmers into these four groups, and in the census of 1920 croppers in the Southern States, who supply no work animals and in most cases are laborers paid by a part of the crop rather than in cash, were separated as a subgroup under tenants.

The relative importance of these four classes of farmers may be measured not only in terms of the proportion of farms operated by each class, but also from the standpoint of the proportion of the acreage of all farm land, of improved land, and of the valuation of farm real estate operated by each of these tenure classes. These four methods of measuring the relative importance of the four tenure classes give somewhat different results.

Relative Importance of the Tenure Classes at Present

Although over half the farms in 1920 were operated by farmers who own all the land, less than half the farm land was in these full-owner farms, and an even smaller proportion of the improved land and of the valuation of the farm real estate. But if part owners be included, whose farms are much larger than those of full owners, the percentage of the total farm land operated by these two classes rises to 66.6, as compared with 60.8 per cent of the number of farms. On the other hand, tenants constituted over 38 per cent of the farmers of the United States, but operated less than 28 per cent of the im-

proved land and of the valuation of farm real estate. . . . Moreover, some of these farm tenants own other farms. While no census statistics bearing on this point are available, local surveys in 15 States indicate that about 10 per cent. of the tenants owned farm land.

The relative importance of manager-operated farms, like those of part owners, is greater than their number would indicate, for such farms are not only larger in average area and valuation than other classes of farms, but also in the South there are many plantations worked by croppers and tenants, under the close supervision and direction of a manager. Even though the entire plantation is so operated, each tenant or cropper holding would be reported in the census as a farm, but the estate as a whole would not be reported as operated by a manager.

The same condition tends to exaggerate the relative importance of tenant farming as compared with owner farming, for many of the plantations of the South, as well as a considerable number of large farms in other parts of the country, although divided up into so-called farms worked by tenants and croppers, are actually under the close supervision and management of the owners. Excluding croppers classified in Southern States only, tenant farms in the country as a whole comprised only 32.2 per cent of the total number of farms in 1920 and white tenant farms only 28.7 per cent of the farms operated by whites.

The Trend in Relative Importance of the Tenure Classes

In 1880, when census statistics of tenure first became available, about one-fourth of the farms in the United States were operated by tenants. The proportion has increased in each decade since that time, but the increase in the proportion of tenants from 1900 to 1910 was not marked, and from 1910 to 1920 was still smaller. Moreover, when the percentages are calculated on the basis of persons engaged in agriculture, instead of on the basis of number of farms operated, it appears that the increase in the percentage of tenant farms was not entirely at the expense of the proportion of owner farmers, but may have been partly at the expense of farm wage laborers.

The geographic distribution of this increase in percentage of tenant farmers is significant. In New England and the North Atlantic States tenants have decreased in relative numbers, whereas in the Cotton Belt States and the Corn Belt there has been a notable increase, particularly in the earlier decades. During the decade preceding 1920 the greatest increase occurred in the Great Plains and Rocky Mountain States. As will be shown later, in newly developed regions such as these, it is to be expected that the proportion of tenants will rapidly increase as the pioneer farmers retire or pass away.

It is evident that the number of tenant farmers has, in general, ceased to increase in most of the longer-settled sections of the East,

in much of the Cotton Belt outside the Coastal Plain, in Missouri, eastern Kansas and Oklahoma, and in many counties of California.

From 1910 to 1920 the relative importance of tenant farming in the United States as a whole increased somewhat more from the point of view of farm area, either total or improved, or valuation of real estate, than from the point of view of number of farms; and the relative importance of farming by full owners decreased correspondingly. The relative importance of farming by part owners decreased slightly when measured in terms of number of farms, acreage of improved land, and valuation of real estate, but from the standpoint of total area of land in farms there was a considerable increase in the relative importance of farming by this class, owing largely to the rapid increase of part-owner farms in the Great Plains region, where the average area of farms is comparatively large.

By adding the land rented by part owners to that rented by tenants it is possible to obtain as far back as 1900 approximate figures of the acreage of farm land and of improved land, and also of the valuation of farm real estate operated under rent contracts. . . . Between 1900 and 1920 the acreage of rented land increased from 34.2 per cent of all farm land (excluding land operated by managers) to 39.3 per cent, while the proportion of the improved land rented increased from 37.5 to 43.8 per cent and the proportion of the valuation of the rented real estate increased from 35.4 to 43.6 per cent of the total valuation of farm real estate.

Shall Our Farmers Become Peasants?

11.[1] The German machine collapsed in November, 1918. After a moment of drunken prosperity, wheat began to fall in price. In two years wheat sold for less than a dollar a bushel; pigs sold on the farm in 1918 at fifteen cents a pound, in 1921 at seven cents; cotton that had been hurried to market at thirty-five cents a pound stood upon the gin-yards of the South without purchasers; horses that had brought two hundred dollars each could hardly be disposed of in 1922 at fifty dollars. It was the third great deflation of the American farmer; and farmers stood aghast at the prospect; yet the world stood in need of their products.

Europeans were hungry and ill-clad, ready to enter their mills and supply the United States with cheap goods, buy American wheat and pork at fair prices and begin the payment of their loans in the products of their industry. Could American farmers connect with European consumers? Could the American Government make arrangements with recent allies for the payment of huge war-debts? Both depended upon politics, though the farmer, slow as ever, was not adept in the game and art of politics. He knew less in 1920 than his pred-

[1] Dodd, William E., "Shall Our Farmers Become Peasants?" *Century*, vol. cxvi, no. 1 (May, 1928), pp. 40-44. Used by permission of the author and editors.

ecessors had known in the days of Andrew Jackson, yellow schoolhouses to the contrary notwithstanding.

Woodrow Wilson returned from Paris with his doubtful treaty in his pocket. The great leaders of the United States were his bitterest enemies, industrial men and bankers, railway managers and the manufacturers of new chemicals. It was the one time in history to support the party in power and conserve the moral fruits of the war. But in the hot temper of 1920 business men and all others who feared the party that would have "made the world safe for democracy," carried the national elections upon a plurality unknown in times past; the farmers of the West were urged by the *Chicago Tribune* and other great newspapers to vote as their fathers had shot fifty-five years before; and farmers hastened to register the decree of their superiors, voting the ticket of Abraham Lincoln. It was "back to normalcy."

Normalcy meant a dependent farmer class. The expected happened. Representative Joseph W. Fordney of Michigan—most of his State engaged in farming—wrote a new tariff. There was no help in it for the farmer. But every class of industrialists had its schedules and rates so arranged that Europeans could hardly hope to sell a jackknife in the United States. With a tariff written by the beneficiaries of the tariff, the various groups of competing manufacturers were finally able to work out combinations among themselves whereby they set the prices of their output, set them high enough to take care of labor, which had come into a powerful position during the war. The Fordney tariff was like that of 1864 and after. It gave Europeans little chance to sell to American farmers and take American farm products in payment. The greatest of all privileges since slavery was secure.

The railroad managers, resenting the thought of government management, asked a new transportation act. They were successful. They were to be permitted to fix charges according to what they thought was fair. A little later the Interstate Commerce Commission ruled that five and three quarters per cent on railway investments was a fair return. The great railway systems of the country were now reasonably secure and able to pay their workers wartime or near wartime wages, the Government itself sponsor for their rulings and urging great railway combinations. Two vast interests—industry and transportation—safe under the national roof. The Federal Reserve system, already enacted, served the financial leaders in the vast affair of wet-nursing business of every kind, the employees of banks being safe with wages and salaries in keeping with the new industrial prosperity. Financial autonomy was secure. It only remained to put organized labor in a safe position.

In the midst of the war skilled workers were able to perfect their machinery and to become one of the interests of the country, always consulted in Washington when anything was to be done. At the end of the war a comprehensive immigration act was placed on the statutes.

It limited the labor supply of the country by hundreds of thousands a year; and with one or two strategic strikes the leaders of workingmen, albeit these were not wholly successful, gained the sort of recognition from industry, transportation and banking which caused business to acquiesce and leave workingmen to control the price of a day's labor, the conditions of work and the regulation of apprenticeships. Skilled labor had arrived. The leaders of labor soon set up banks of their own and took on the manners and bearing of business. The country must support them. Had not the three million enemies of all privilege in 1776 gone a long way in 1922—the greatest country in the world, every class but farmers and unorganized city folk duly screened against the winds of adverse economic fortune? Wilson died the next year.

The farmers, with European markets lamed, were left to take their chances in the American market. If they sold wheat or cotton it was at the European price, less the freight. If they sold milk and cream, the price was fixed by city distributors. A crop of apples selling in the cities for fifteen dollars a barrel, retail, hardly brought the apple-grower three dollars a barrel, in 1926 one dollar a barrel. With the American market a fairly closed monopoly, business men weathered the drastic deflation and held their heads high in the great world outside; farmers compelled to sell in competition with farmers all over the world sold at the lowest international prices and were then compelled to buy their supplies in a protected market at prices set by those who sold.

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It was time for the farmer to seek the wilderness again; but there was no wilderness, no free lands into which he might retreat and start afresh. His money in the bank vanished; his wartime debts increased in value, war taxes bearing heavily upon his land if he was a landowner, upon his articles of consumption if he was a mere tenant—the vast Federal debt to be paid out of the earnings of working folk, Europeans unable to pay in gold and excused from paying in kind. Once more the farmer was paying a heavy part of the cost of a great war, statesmen all against him, "demagogues" his only friends. A few typical prices will show the inequality of the economic life and show how nearly wartime prices prevailed to the very end of 1925, conditions not different in 1928: Men's suits of farmers' clothes sold in 1914 at $14, in 1920 at $41, in 1925 at $27.64; men's work shoes in 1914 sold at $2.30 a pair, in 1920 at $5.00 and in 1925 at $3.56 and rising since that time; double wagons sold in 1914 at $66, in 1920 at $155 and in 1925 at $138.26. It was the same with blankets, sheetings, cooking utensils and wire fencing. There was some decline from the peak figures of 1920, but no return to the low prices of 1914. But in every major article of farm output deflation meant a return to the levels of pre-war days. Can the farmer survive under such conditions? Unable to organize in solid phalanxes, unwilling to forget his

fifty-year-old sectional dislikes, ill-assisted by the education which the schools and the press give him, is not his lot peasantry, the poor lot of most of our ancestors in Europe?

If one looks over the wide landscape, South or West, there appear empty and dilapidated houses and shabby fences; fields giving certain evidence of poor economy and decided erosion. There are automobiles to be sure and good roads, both of which tend to raise land values without raising the prices of farm products and at the same time to hurry farmers' children to the towns and cities. Over half the farmers are now tenants; and half of those who own lands are bound fast by mortgages and hardly able to obtain credit in the farm loan banks set up for their benefit. There are some successful farmers, owners of large tracts of land with tractors and machinery and day laborers to man them: such men earn somewhat more than their payrolls and the taxes—men who hold on to the homes of their forebears or men who, having made fortunes in industry, have retired to broad acres in the country, like English business men of the eighteenth century. But these are not the farmers who made the United States, the self-sufficing, home-owning folk who shouted and roared and drank bad whisky in the days of Jackson and Clay. They are business men, masters of fortunes and the labors of others, not unlike the lords of plantations put down in the Civil War. Why a great war to put them down?

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If one turns to the city, there is so much wealth and refinement that twenty-year-old houses must be torn down to make room for more fashionable houses; new styles in apartments cause old apartments to be abandoned after ten or fifteen years; a fancy for antique furniture sets everybody seeking antiques and starts fresh manufacturies for the making of ancient furniture at top prices. In the loop of Chicago or on Manhattan Island great business houses built in the days of Cleveland and McKinley are torn down to make room for sky-scrapers, land selling at five hundred dollars a square foot. Nothing is stable, neither ancient landmarks nor ancient families make any appeal. Wealth is so vast, income so great that anything can be ventured.

It is a marvelous picture; and who blames the farmer's son if he abandons the holdings of his father, the farmer's daughter if she hurries to the slavery of clerkships and waitresses' jobs in the city? Two million farmer folk have abandoned the land since 1920, six hundred thousand in the year 1926. The city and not the wilderness is now the appeal, the ancient longing for a freehold, a place where one is one's own master no longer exists. Land values are high although immigrating Europeans no longer wish to be landowners; they prefer to crowd the streets of the city, looking to industry for wages, for cottages on long, dreary dirty streets. It is a new United States that now lifts its head in the great world, ready to lend money, to lead in new ways or to conquer a weary or a backward world.

The farmer is on the way to peasantry. Is there a desire to deflect his course? Do the powerful in the United States wish to deflect it? I doubt it. But if they do, the remedy is not an easy one. A declining rate of tariff taxation would give the greatest relief. But a steadily falling tariff would lead to violent business protests. A reclassification of freight rates would assist; but railroad managers and their army of workers would resist to the extreme—there might be nation-wide strikes. A decentralization of accumulated capital, already dangerous in its greatest center, would take some money from imperialistic ventures in foreign lands and make money easier in farm loan banks; but financiers would make their powerful opposition felt in a moment. More important, the city markets might be opened to farmers, but an army of distributors and middlemen would resent the first move that was made and denounce it as socialism. Some governmental assistance might be given to the organization of the farmers and to the seasonal warehousing of their surplus; and this would mean much. And a statesmanlike flood control in the Mississippi Valley would mean even more, to future generations of farmers. But no one of these remedies would be sufficient; all of them, duly applied, would halt for a time the rapid pace of farmers toward tenantry, merely halt the pace. At any rate, a people with an annual income of ninety billions ought to be able to lend some assistance to its farmers with the lowest average effective income since the inauguration of George Washington.

But there is little serious thought in the capital. The President glibly vetoes farm bills without offering better ones. The Secretary of the Treasury is bent upon lowering the income tax in the higher brackets by $225,000,000; the Democratic leaders would go him one better and reduce the tax by $290,000,000—hardly a thought here of the misery and the squalor in Alabama or Dakota farmsteads. Nobody thinks of accumulating a surplus, in these years of surpassing abundance in business, to finance remedies for agricultural ills; and many able men even declare there are no ills, and bid the farmer "keep out of politics," keep out of the house of his fathers! Two million farmer folk abandoned their lands between 1920 and 1926. No farm problem? The present vast industrial privilege is the result of a hundred years of business men in politics. The railway leaders have been in politics since 1850, and they operate now under the protecting law of 1920. There has never been a time when bankers were not in politics, and the great army of financial men are now protected and guided to steady and increasing profits by positive law. Even the labor organizations are shielded by State and national law. "Let the farmer keep out of politics."

Everybody but the maker of the country has a right to governmental assistance. The victim of every deflation for a hundred and fifty years, the tough-fibered, red-necked tiller of the soil, with no wilderness left him as an asylum, must, like the Indian, "march on," or reverse his course and hasten to the city, seek a place under the labor roof

and endeavor to exploit his fellows left behind; or he must stick to his dunghill, grip his peasant's hoe and doff his dirty cap to superiors who command him—the rôle that twenty generations of his forebears played on the ancient hills and plains of Europe. A marvelous evolution, devolution of the American farmer. "For whosoever hath, to him shall be given, and he shall have more abundance: but whosoever hath not, from him shall be taken away even that he hath."

Farm Labor and the Influence of Machinery

Supply and Wages of Farm Labor

12.[1] Number of persons engaged in agriculture. Movement from the farm

Industrialism and city expansion have advanced in this country in greater degree than agriculture. The lure of the city and the city's illusion of higher wages are robbing the farm of its laborer and of the farmers' children who would otherwise be the potential farm owners of the future.

The more or less imperfect census record is the only information possessed in regard to the number of persons engaged gainfully in agriculture in this country. It is very considerably an imperfect record previous to the census of 1900, for the reason, principally, that enumerators often reported agricultural laborers as laborers without any designation of kind of work done by them, and for this reason the agricultural element in the population is represented as being less than the fact. It may be that in some small degree this observation applies to the census of 1900.

In 1820 the number of persons of both sexes reported as being engaged in agriculture was 2,068,958, including slaves, and with the same inclusions the number for 1840 was 3,719,951; by 1880 the number had increased to 7,663,043; by 1890 to 8,466,363; and by 1900 to 10,249,651 (census report on occupations). In the later censuses the persons are described as having been employed gainfully, a distinction not made in the earlier ones. The statements are for the contiguous States and Territories of the Union.

The agricultural element was 83.1 per cent of persons having occupations in 1820; 77.5 per cent in 1840; for gainful occupations, 44.1 per cent in 1880; 37.2 per cent in 1890; 35.3 per cent in 1900. For 1910 the inference is that one-third or less of the persons having gainful occupations are embraced in the agricultural class.

Agricultural laborers constitute one of the primary classes of occupations, and their number, as before stated, has been reported by all censuses as below the fact because the enumerators have reported many of them as general laborers. Another element of error has been

[1] Holmes, George K., "Supply and Wages of Farm Labor," *Yearbook of the Department of Agriculture, 1910,* pp. 189–192, Washington, 1911.

the reporting of negro "croppers" in the South in the census of 1870 and subsequent ones as farmers, whereas they would have been more properly designated as farm laborers, since they worked for wages, although the wages were contingent. Taking the record as it stands, the number of agricultural laborers in 1880 was 3,323,876; in 1890 it was 3,004,061; in 1900, 4,410,877. The erroneous character of the census enumeration with regard to agricultural laborers appears when it is observed that they were represented as being 43.4 per cent of all persons engaged gainfully in agriculture in 1880; only 35.5 per cent in 1890; and 43 per cent in 1900.

Analysis of the occupation figures of the census of 1900 discovers that 12.3 per cent of all persons having gainful occupations in the North Atlantic division of the States was engaged in agriculture; 26.1 per cent in the Western division; 36.3 per cent in the North Central division; 49.9 per cent in the South Atlantic division; and 62.8 per cent in the South Central division, the average for the United States being 35.3 per cent. Agriculture as an occupation is of least account, relatively, in New England, New York, New Jersey, and Pennsylvania, the group of States constituting the North Atlantic division, and is of greatest account in the lower section of the Mississippi Valley, constituting the South Central division.

Subject to the imperfections of the record, the agricultural laborers in 1900 were 35.2 per cent of all persons gainfully engaged in agriculture in the North Central States, 36 per cent in the Western States, 39.3 per cent in the North Atlantic States, 47.8 per cent in the South Central States and 52.5 per cent in the South Atlantic States—the lowest percentage being found in the North Central States and the highest in the South Atlantic.

The agricultural element in the population, as indicated by the occupation statistics of the census, is relatively a diminishing one, and it is generally believed that the agricultural laborers, or those who work for hire, are a diminishing relative element in the agricultural population, although this does not appear in the imperfect census record.

Machines Increase the Productiveness of Labor

The reason why agricultural labor could decline relative to National consumption of agricultural products and still leave an enormous National surplus for export is forcibly expressed in the report of the United States Bureau of Labor concerning hand and machine labor, issued some years ago. The facts established in that report warrant the conclusions that follow.

From 1855 to 1894 the time of human labor required to produce 1 bushel of corn on an average declined from four hours and thirty-four minutes to forty-one minutes. This was because inventors had given to the farmers of 1894 the gang plow, the disk harrow, the corn planter drawn by horses, and the four-section harrow for pulverizing the top soil; because they had given to the farmer the self-binder

drawn by horses to cut the stalks and bind them; a machine for removing the husks from the ears and in the same operation for cutting the husks, stalks, and blades for feeding, the power being supplied by a steam engine; because they had given to the farmer a marvelous corn sheller, operated by steam and shelling 1 bushel of corn per minute instead of the old way of corn shelling in which the labor of one man was required for one hundred minutes to do the same work.

In the matter of wheat production, 1894 being compared with 1830, the required human labor declined from three hours and three minutes to ten minutes. The heavy, clumsy plow of 1830 had given way to the disk plow that both plowed and pulverized the soil in the same operation; hand sowing had been displaced by the mechanical seeder drawn by horses; the cradling and thrashing with flails and hand winnowing had given way to reaping, thrashing, and sacking with the combined reaper and thrasher drawn by horses.

Herein lies the strength of the horse as an economic animal. He has been assailed by the bicycle, the electric street and suburban car, and by the automobile, but all combined have not prevented horses from increasing in numbers and in value. As a source of farm power and as a substitute for human labor in combination with machines, the horse's economic place on the farm is more strongly established than ever before.

Immigration Not Contributing Much to Farm Labor

Immigration contributed much to the agricultural population until the supply of cheap and otherwise desirable public land was nearly exhausted. At the present time, when land that immigrants can readily utilize for agriculture is high priced, they are not contributing appreciably to the agricultural population. During the year ending June 30, 1908, the immigrant aliens admitted to this country numbered 782,870, of whom, or their equivalent, 50 per cent returned to their native countries on account of the industrial depression they found here; the number arriving in the fiscal year 1909 was 751,786, of whom 30 per cent returned; and in 1910 the arrivals were 1,041,570, of whom 17 per cent did not remain.

By means of census publications, the white foreign-born agricultural laborers, as an element of the total white agricultural laborers, may be determined. In 1890 the white foreign-born element was 13.1 per cent of all white agricultural laborers, and the percentage declined to 8.5 in 1900. In the latter year only 258,479 agricultural laborers were foreign-born whites in a total of 3,038,884 white agricultural laborers. The white foreign born as an element of the total white agricultural laborers was 0.6 per cent in the South Atlantic States in 1900; 2.6 per cent in the South Central; 11.8 per cent in the North Central; 15.6 per cent in the North Atlantic; 20.9 per cent in the Western.

If the number of agricultural laborers of foreign parentage be taken

for 1900, and this number includes many laborers who were American born, it appears that they are 17.4 per cent of all agricultural laborers; but the percentages vary widely among the geographic divisions —in the South Atlantic division, 0.8 per cent; South Central, 3.6 per cent; North Atlantic, 30.4 per cent; North Central, 40.7 per cent; and Western, 48 per cent.

Effect of War on Agriculture

State of Agriculture During Past Four Years

13.[1] In the administrative period now drawing to a close American agriculture has been faced with problems of unexampled seriousness and difficulty. It has suffered the shock of a major economic crisis, from which it sustained more damage than any other branch of production. This crisis was followed by an uneven price readjustment whereby the exchange of goods and services between town and country came to stand on a footing highly disadvantageous to the farmer. It now seems that the corner has been turned. Although the farmers as a class do not yet receive compensation for their services on a parity with that received by other economic groups, they are getting substantially more than when the present administration took office.

In these circumstances it seems advisable in this report to depart from the usual custom of reviewing only the agricultural history of the last 12 months and to glance instead at the entire period since the depression began in 1920, sketching briefly how the farmer has been affected and outlining the contributions of the department to the solution of the farm problem.

It is worth noting that the depression struck American agriculture in a transition period. Within a decade it had increased its production 15 per cent, not by increasing the number of farm workers, but by increased efficiency. Rejuvenation of equipment was in full swing. Road horses were being exchanged for automobiles. Some regions were introducing tractor power. A great program of pure breeding and disease control was under way in the livestock industry. Farmers everywhere were pushing ahead to a better living standard.

All this development was checked by the postwar crisis. The increased productive efficiency which normally would have meant prosperity brought bitter fruit instead. Buying of new materials and replenishment of equipment stopped. Farmers ceased to buy tractors and depended on horsepower. Great herds of livestock were dispersed. The South was handicapped in its fight against the boll weevil. Standards of living were reduced. Farmers drew on their cash reserves and on the equity in their land, and debt accumulated. In short, the condition by the end of a decade of extraordinary prog-

[1] From the report of the Secretary of Agriculture, *Yearbook of the Department of Agriculture, 1924*, pp. 17–21, Washington, 1925.

ress in agricultural efficiency was the reverse of what might have been logically expected.

The depression which began in 1920 was not merely a stretch of lean years, such as farmers have had to go through before. It was a financial catastrophe, the full effect of which can not yet be measured. Though all parts of the country have not felt this depression equally, no region has escaped. Some regions may yet have to experience its full force. A large proportion of the most efficient and energetic producers occupying the best lands of the country have been hard hit through no fault of their own.

So extreme and one-sided was the drop in prices that the farmers were unable to believe it could last. This mistake, in which they were often confirmed by business men and bankers, aggravated the trouble. Farmers held on and in many cases borrowed money to pay interest and taxes and to meet current expenses. As the depression continued the load of debt increased. Many farmers became discouraged and turned over their property to creditors. From this situation the Nation suffered as well as the individual farmer. It is true that most farms whose ownership changed as a result of the depression continued to produce. Frequently, however, they were no longer cultivated by proprietors with a permanent interest in maintaining soil fertility, but by renters, since most of the farms that were foreclosed passed into the hands of nonfarmers. An especially burdensome feature of the depression period was the fact that farm costs of production advanced while farm prices were declining.

Readjustment of prices after the war was inevitable and was expected. An equal readjustment, affecting the prices of the things the farmers have to buy in the same degree as it affected the prices of the things they have to sell, would have enabled agriculture to get through the readjustment period very well. But the uneven price readjustment that actually occurred left the farmers helpless. They were injured as much by this characteristic of the depression as by the speed and extent of the drop of prices. Three years of big crops did little to pull them out of their troubles. In fact, efficiency in farm production seemed to make matters worse. In 1922 the spread between the prices of farm products and the prices of factory goods widened. While industry was booming, agriculture sank to lower and lower levels of depression.

Now that the situation is on the mend, it will be worth while to record some of the effects of the depression because these effects can not be wiped out overnight. Total farm mortgage indebtedness in the United States has greatly increased since 1920. Some of the increase in mortgage debt probably represents new investment in land and in improvements. Most of it, however, has unquestionably been assumed to refund short-time loans to pay interest, taxes, and current expenses.

Tax delinquency has increased. This is especially significant be-

cause farmers do not willingly delay their tax payments but when possible borrow money to meet them. In some western areas local taxes have been delinquent for several years. An increase in taxes coincided with a decline in the means of payment. Total farm taxes absorbed in 1923 almost 7 per cent of the gross value of farm products compared with 4.9 per cent in 1913. Reports from 16,182 farmers in 1923 showed that their taxes averaged 17.6 per cent of their net farm returns. In most of the important farming regions of the country taxes on farm lands have gone up two to six times as rapidly as the value of the land. Taxes in the last few years have consumed from 10 to 50 per cent of the net farm income in large sections of the country. Tax burdens have been particularly heavy in the North and the West.

The increase in taxes has been partly due to increases in the cost of conducting public business. Other causes have been a natural tendency for Government activities to expand with the growth of population, and a drift toward extravagance growing out of optimism engendered by high commodity prices prior to 1920.

While a remedy is needed for this trouble, it is not clear that the best one is reduced public expenditures. In many cases taxes must be maintained at high levels to meet obligations already incurred. Nor should we profit in the long run by restricting the legitimate functions of Government.

Farmers often find their taxes too heavy because of the way in which they are raised. Taxes collected from farmers are usually based on a general property levy. They are levied upon the selling value of the property but are normally paid out of income. Too often the amount of the tax has little or no relation to the amount of the farmer's income. Selling values of land which serve as the basis for taxation do not rest only on current earnings but also on anticipations of future earnings. This often means that taxes have to be paid on fictitious values. Perhaps the general property tax system should be modified.

Another defect in our tax system which tends to increase the burden on agriculture is the fact that a large amount of personal property in urban centers escapes the tax assessor. Some tax evasions are unlawful and others have the sanction of law. Among the latter are those made possible by the enormous volume of tax-exempt securities that has been issued. Farmers' wealth is mainly in the form of land and other forms of personal property which can readily be assessed. Farmers are consequently forced to pay a larger part of the total tax bill than their share of the national wealth warrants. To ease the tax burden on agriculture new sources of revenue should be tapped. This means of relief, coupled with a wider diffiusion of public burdens, should be sought at the earliest possible moment. It is not necessary to cite all the evidence of damage done to agriculture by the economic depression. One measure of the trouble is the fact that in the last four years 16 per cent of all bankruptcy cases reported to the Department

of Justice have been farm bankruptcies, whereas in the pre-war years only 5 per cent of all bankruptcy cases involved farmers.

The department estimates that the average value of plow lands in the United States as a whole declined 27 per cent between March, 1920, and March, 1924. This decline in land values is important in view of the ratio of debt to the approximate value of farm lands. This ratio for owner-operated farms, which in 1920 was 29 per cent, had increased by 1924 to probably more than 40 per cent.

It may be well to point out that the farmers were not the cause but the victims of the land speculation which carried land values in some regions up to impossible heights in 1919 and 1920. The land boom was nourished mainly by business men and bankers in the country towns. When commodity prices dropped in 1920 many thousands of producers on farms were unable to meet their payments. Sellers usually extended their time for payment. They wanted the money, not the farms. But the shrewder buyers took the loss of payments already made and turned back the farms. Others who hung on for two or three years merely increased their losses. Many farmers who sold one farm and bought another expecting to pay for the second with the money received for the first were wiped out financially. Many renters were heavy losers as a result of the land boom. They lost their lifetime savings which they had put into first payments on farms.

Many farmers whose debts are very heavy are determined to save their homes and meet their obligations if given an opportunity. These men deserve encouragement. Considerations of good business, as well as fairness, should prompt creditors to make every reasonable concession which will permit them to hold their farms. In an extension of time for payment, reduction in interest charges, or even a cancellation of part of his debt will enable the farmer to liquidate a major part of his obligation, which he would otherwise have to default, both farmer and creditor should profit. On the other hand, the practice of encouraging farmers to keep on in the face of impossible odds, so that they continue making payments for a time only to be forced out when mortgages can be profitably foreclosed, must be disapproved.

The overproduction which brought about the collapse in farm prices resulted largely from the stimulus of advancing prices and from the response made by the farmer to patriotic appeals for increased production during the war. The stimulus to increase production did not cease when the armistice was signed. Some Government officials, economists, and commercial papers taught the doctrine of permanently high prices. Farmers were given every encouragement to maintain production at a high level. They were assured that a starving world overseas would take all they could produce at profitable prices. When this stimulus to production had resulted in a large accumulation of foodstuffs, the overbalanced supply position, aided by a campaign of price deflation, brought on a collapse of values.

In the slow and painful process of recovery from this situation per-

haps the greatest single helpful influence has been the way farmers themselves have readjusted their production to correct the unbalanced position left by the expansion of the war period. There has been a decline in crop acreage marked by a tendency to return to the pre-war crop ratios. The acreage of wheat is gradually returning to the pre-war level. Since 1920 spring wheat acreage has been reduced about 20 per cent. Winter wheat acreage has been reduced about 8 per cent. In some parts of the Northwest flax has been substituted for wheat, and larger acreages of feed crops have been harvested generally. The area given over to wheat in the Corn Belt during the war period has been put back into corn.

Although overexpansion in certain branches of farming did not end until after the crops of 1920 had been planted, the readjustment process is now nearing completion. In the South the ravages of the boll weevil have encouraged a material increase in the cotton area, partly at the expense of corn acreage in that region. The decline of corn acreage in the South has tended partly to offset increased corn acreage elsewhere. Changes in livestock enterprises have kept pace with crop changes. Favorable returns from dairy and poultry products have brought about a great swing toward these enterprises, particularly marked in the case of dairying in the North Central and Western States. Swine and beef-cattle production has been increased to keep pace with the greater production of feed crops. These changes, although they have much improved the situation, have not yet brought about a normally stable agriculture. But, in the main, the farmers have done a courageous, thorough, and efficient job in rectifying a bad situation. Readjustment with respect to the proportion of different things produced, however, was by no means the whole solution of the problem, because the general price level of farm products was down in relation to other things and this could not be remedied by changing from the production of one thing to another.

American Agriculture, 1926

14.[1] Agriculture is a determining factor in our economic welfare.

It normally exerts a purchasing power for nearly ten billion dollars' worth of goods and services of other groups annually.

It purchases annually about a tenth of the value of the products of our manufacturing industries.

It supplies materials upon which depend industries giving employment to nearly half of our industrial workers.

It pays indirectly about two and a half billions in wages of urban workers.

It supplies about an eighth of the total tonnage of freight carried by our railroads.

Its products constitute nearly half of the value of our exports.

[1] National Industrial Conference Board, Inc., *The Agricultural Problem in the United States* (New York, 1926), pp. 141-142.

It pays in taxes one-fifth of the total cost of government.

The capital invested in it in 1919 more than equalled that invested in our manufacturing industries, mines and railroads combined.

It represents about a fifth of our national wealth, and normally contributes about a sixth of the national income.

Since it supplies not only the food for our industrial workers, but about a third of the materials of our industries and a market for a large part of their products, it forms the basis of our industrial prosperity.

Since, also, the farm population forms about thirty per cent of our total population and constitutes a reservoir from which must be drawn a large part of our future citizens, the standards of living and the social welfare of this group cannot but have an important effect upon the racial quality of our people.

Comparative Importance of Agriculture, 1926

15.[1] From the point of view of national policy, the most important aspects of the industry to be considered are: the trend of development of the agricultural "plant"—that is, the land resources of the country which are the basis of the industry; the trend of the economic position of the industry as a whole, in respect to the value of its products and the costs of production; the economic position in respect of return for labor and investment of those who own and work farms, who form the working force and capital of the backbone of the industry; the conditions affecting the most important branches of production—cotton, wheat, corn, livestock, hogs and dairy products—in the sections where these branches are concentrated; and, finally, the factors underlying these changes and current conditions in the industry as a whole and in its major branches.

In these respects the available information indicates the strong probability that, for a considerable period before the war, and at least as early as the beginning of the present century, there have been in operation forces which have tended to create a progressive inequity and maladjustment between the position of agriculture and that of other branches of our economic life.

This is reflected in the following conditions:

1. The contraction of our agricultural "plant" and its production relative to the growth of our population.

2. The increasing effectiveness of competition of foreign producers in both foreign and domestic markets, shown by the downward trend of exports and the rise of imports after 1900, both of which were interrupted only temporarily by the exceptional conditions during the war period.

3. The rapid rise in capital, labor and operating costs relative to the price per unit of product since 1900.

[1] National Industrial Conference Board, Inc., *The Agricultural Problem in the United States* (New York, 1926), pp. 143–144.

4. The persistent and increasing disparity between the per capita share in the national income of those engaged in agriculture and that of those engaged in other major occupations.

5. The disparity between the return for investment and labor in agriculture and that in other activities.

6. The rapid increase in the rate of farm bankruptcies compared with that of commercial failures since pre-war years.

7. The wide disparity between the per capita income of the farm population and that of the non-farm population in the dominantly agricultural sections of the country.

The available information in all these respects strongly suggests, although further investigation is necessary to establish, that while the position of agriculture since 1920 reflects chiefly the disturbance and upheaval of the war and post-war period, unfavorable factors in the agricultural situation have been in operation since the beginning of the century, and have been in some way related to the rapid expansion of industry, trade, finance and government during the past twenty-five years.

Federal Farm Loan Banks, 1925

16.[1] In the nine years intervening since 1916, when the farm loan act was passed, great strides have been made. The original capital of the Federal land banks was $9,000,000, of which $8,892,130 was supplied by the Government. The capital account stood, December 31, 1925, at $53,769,567.50, of which only $1,331,930 was owned by the United States, while borrowing farmers in national farm loan associations provided $51,929,867.50, borrowers through agents, $507,540, and individual subscribers, $230. In addition, there are now reserves and surplus equaling $12,765,112.32. Net earnings from the beginning of business to the end of 1925 were $34,964,937.86, out of which dividends were paid amounting to $14,590,535.69. It is the policy of these banks to charge off real estate acquired by foreclosure, so $6,398,735.49 were used for this purpose, and $1,062,159.93 were set aside as a reserve for delinquent installments, in addition to $148,394.43 as a charge-off on account of banking-house property. There remain undistributed surplus, reserve, and profits accounts of $12,765,112.32. These alone exceed the original capital by almost $4,000,000. In this period 379,875 farmers have been served through 4,925 national farm loan associations, in a total amount of $1,169,356,599. Only one's imagination can conjure just what benefits the stupendous total of these figures represents. Certainly no other institution devised to serve farmers can present a record so unique and so distinctly successful as this.

It is entirely feasible, as this history demonstrates, to fashion a

[1] *Ninth Annual Report of the Federal Farm Loan Board Year Ended December 31, 1925, 69th Cong., 1st Sess., House Doc. No. 272,* pp. 2–3. Washington, 1926.

financial system for farmers, owned by them and administered solely for their benefit.

The development of joint-stock land banks has likewise been notable. As reported to the board by these institutions, of which 53 were active at the close of 1925, they had capital paid in amounting to $41,595,-625.98, which, with other surplus, reserve, and profit accounts, brought their total investment up to $51,679,782.61. Beginning in 1918, with loans which were $8,408,421, they increased this aggregate to $624,-628,615 at the close of the past year.

In both types of banks advances have been made to farmers upon real-estate security to the extent of $1,793,985,214.

In the Federal intermediate credit banks, from the beginning of their operations, following the enactment of the measure creating them, March 4, 1923, to the date of this report, $215,949,184 have been loaned to coöperative marketing associations, secured by staple agricultural commodities, and notes of farmers aggregating $96,221,065 have been rediscounted for financial institutions.

Therefore we may say that funds have been provided for the credit requirements of agriculture through this system in the total sum of $2,106,155,363. Contrary to a somewhat common impression, no funds for loaning by any of the banks, other than the actual paid-in capital of the intermediate credit banks, are available from the Treasury. In all other instances they are derived from the sale of bonds or debentures.

The successful operation of the farm loan system is dependent, first, upon the strength and soundness of its fundamentals, and secondly, upon its adopting and adhering to a policy of conservatism and careful management. Failure to require adequate security for all loans means a violation of the principles upon which the system is based. In order to maintain the integrity of the system and to assure its continued efficiency, there must never be any question as to the ability of any bank promptly to meet its obligations. With due allowance for occasional minor impairments, none of which is of such significance as to affect or alter the general situation, and all of which are promptly adjusted, the board exacts rigid adherence to the rule that each bank must have 100 per cent of good mortgages, plus the capital and legal reserve required by the act, unimpaired, to support its outstanding bonds.

While one purpose of the farm loan act was to provide an adequate credit to farmers on the basis of a long term for repayment, at a charge for interest as low as rates in the investment markets would permit, and at a minimum cost of operation, a no less fundamental purpose was to make a contribution to a more prosperous agriculture by the inculcation of principles of diversified and well-balanced production, together with a suitable scheme of orderly marketing, which would establish the occupation of farming upon a dependable business basis. The banks in the farm loan system have encouraged a diversified agri-

culture; they have urged the idea of safe farming, meaning thereby, any plan which insures the farmer against complete loss of his annual income through failure of his chief or only money crop. In appraising land for a loan, the banks are concerned to know that it is capable of producing income sufficient to pay taxes, operating or maintenance charges, installments on the loan desired, and, in addition, enough more decently to support the farmer and his family. It is by the enunciation of rules such as these that the board has encouraged safe farming and spread an understanding of safe banking. We believe our loans must be safeguarded, and by giving preference to applicants who follow principles of safe farming automatically we put a premium on good farming. Thus those who are responsible for the manner in which the farm loan system functions have sought to be discreet in approving applications so as to insure a continuance of loans at a low rate of interest and to exert a constructive influence for the wide spread of safe and successful farming throughout the country.

The Federal farm loan system is assembling the most reliable agricultural data in existence, to wit, the ability of farmers to liquidate their debts. This is the acid test of the condition of agriculture. If farmers show a favorable balance at the end of a year of operation, after they have met all the conditions that confront them, then it can not be denied that this industry is on a sound basis and profitable. The information which has been accumulated has to do with the ability of almost 400,000 farmers, distributed through 48 states, and the island of Porto Rico, to meet their financial obligations. The situation of the American farmer, according to this standard, is reflected in the statistical reports of the 12 Federal land banks and the 53 joint-stock land banks. Examination of these reports forces one to the conclusion that agriculture, as a whole, is in better condition this year than it was last, and is distinctly on the upgrade.

Here and there, it is true, as probably may be the case in any year, some bad spots, due to drought or other unavoidable causes, manifest themselves, yet, broadly speaking, a spirit of betterment is clearly in evidence.

CHAPTER XVIII

LABOR AND IMMIGRATION

THE sharp rise in the cost of living during the Civil War and the fact that wages lagged behind impressed upon American labor the importance of organization. The concentration of labor in urban centers provided the opportunity, and during the later war years and immediately after unionization progressed rapidly. Several attempts during these years were made to weld the local and national unions into a single great organization which might be powerful enough to speak with authority on the problems of the wage-earner. Of these the most famous was the Knights of Labor, organized in 1869 by Uriah S. Stephens and a group of Philadelphia garment-makers (1). Admitting anyone who labored with hand or brain, except bankers, stockbrokers, lawyers, gamblers, and dealers in intoxicating liquors, the founders offered a specific program for the betterment of the working classes (2), and sought to permeate the order by high idealism (3). The growth of the order was slow at first, but became more rapid in the late 'seventies and the early 'eighties. After 1886, however, a similarly swift decline set in. The organization was too heterogeneous, and did not sufficiently recognize the conflicting interests of employer and employee, and the conflicting interests among the workers themselves. Valuable as was the experiment, the whole effort seemed to be pitched on too high a level.

More in line with the actual needs of the moment, and better adapted to the American labor movement at the time, was the American Federation of Labor, which advanced in power as the Knights receded. Taking form in the middle 'eighties (4), it grew at first slowly and then, with the turn of the century, more rapidly (5), until it became the primary labor organization of America. Under the extremely practical, if somewhat conservative, guidance of Samuel Gompers and his followers, the American Federation of Labor has spent little time or energy dreaming of the millennium, but has occupied itself with an effort to gain immediately attainable objects. Based upon craft unions loosely joined in a great organization, the burden of the war upon capital has been borne by the individual craft union, leaving the officers of the

Federation to pursue an opportunistic policy designed to promote a general labor advance. Although the A. F. of L. occupies unquestionably the foremost position in America among labor organizations, it does not preëmpt the field. The four railroad brotherhoods have always refused to join, while other groups, irritated at the unbending conservatism of the larger body, have sought to work outside of its fold. Of these the Industrial Workers of the World is perhaps the most notable. Asserting that the working class and the employing class have nothing in common and that the fight must go on until labor takes possession "of the earth and the machinery of production" (6 and 7), it has sought to organize by industries rather than by crafts, and to promulgate a distinctly revolutionary philosophy. Quite naturally the labor organizations and their programs have been bitterly assailed by the employing class (8 and 9). Not only have the latter fought labor openly, but they have sought by means of many types of welfare work, stock ownership, and company unions to break down any feeling of class solidarity and weaken the power of organized labor (10).

The chief impetus for the development of labor organizations came, of course, from the conditions under which the wage-earner worked. Glimpses of those conditions as they existed in the decade of the 'eighties may be found in the testimony taken by a committee of the Senate. Robert D. Layton's pictures of conditions in a Rochester factory (11), Robert Howard's statistics of hours of labor in the New England textile industry (12), Samuel Gompers's testimony on the hours and wages of women and children (13), as well as his description of conditions under which the horse-car drivers of New York worked (14), all show but too clearly the need for powerful unions and collective bargaining. What a labor union had already done in one industry (cigar-making) was described by Gompers (15), while certain remedial suggestions were presented by another famous labor leader (16). At the same time the optimistic *laissez-faire* philosophy of a successful capitalist was spread upon the records by the railroad magnate, Jay Gould (17).

That the lot of the wage-earner was in sore need of improvement would seem to be obvious from the testimony which has been quoted at length, but better conditions were only achieved after years of the bitterest conflict (18). That a real advance was made, however, is demonstrated from the history of workingmen's compensation (19), and may be gauged to some extent by noting the reconstruction program of the A. F. of L. (20). Notwithstanding the persistent efforts of labor unions and humanitarians, ideal conditions are far in the future. In 1900 the black list was still a favorite

weapon used by railroad employers (21), while the wages of women in the clothing industry during the inflated war period and thereafter were pitifully small (22 and 23). At the same time the wage-earners in one of the basic American industries were forced to work a twelve-hour day and refused the right to unionize (24 and 25).

The whole question of labor is interrelated with that of immigration. While capital in general during our history has been in favor of an unrestricted and large immigration, organized labor for self-protection has opposed it. Between the years 1850 and 1900 the total immigration had been around 16,000,000, an influx which had not only provided much of the unskilled labor, but also contributed to the frontier advance (26). The distribution, however, had not been even, the newly arrived immigrants preferring the city (27). Up to 1870 the immigration had been chiefly from the western and northern European nations, but toward the end of the century a notable change took place in the source of the migration, the chief influx coming from eastern and southeastern Europe (28). This rapid inflow of large numbers of aliens of different race and institutional background was considered by many to be dangerous, and the agitation for a more restricted immigration was given a new impetus. Organized labor was now backed by "patriots" of various kinds, including those obsessed by the theory of "nordic superiority," and the post-war years saw a drastic revision of the immigration laws for the purpose of not only decreasing the amount, but shifting the source (29, 30, and 31). The solution of the immigration problem has not yet been achieved, but the legislation of the last decade points clearly to the method now prevailing.

Genesis of the Knights of Labor, 1869

1.[1] Among the local societies organized in Philadelphia during the civil war was an association of garment cutters. The demand for clothing to supply the wants of the army had brought to the front the speculator in shoddy, who attempted to palm off his worthless wares on the government and public. The great demand for clothing, and the inducements offered to contractors, created a corresponding demand for tailors, and drew the attention of men to that trade who

[1] Powderly, T. V., *Thirty Years of Labor,* pp. 131–138, Columbus, Ohio, 1889.

Editor's Note.—Terence Vincent Powderly (1849–1924), machinist by trade, followed U. S. Stephens as Master Workman of the Knights of Labor, holding that office for fourteen years. He served as mayor of Scranton, Pennsylvania, for three terms, 1878–1886, as United States Commissioner General of Immigration, 1897–1902, and in subsequent years held other important posts with the Bureau of Immigration. His long period of leadership in the Knights of Labor contributes to make his book, *Thirty Years of Labor,* an authoritative source.

had never sewed a stitch, or even pricked the finger end with the needle as apprentices. The speculation which was indulged in at that period brought rich rewards to those who were directly interested.

When the skilled workmen, those who had spent long years at low wages, and had served years as apprentices, saw the inroads that were being made upon the tailoring trade by the introduction of so many incompetent workmen to the bench, they began to question whether it was not time to make an effort to stem the tide of ruin that was setting in against their trade. No action was taken until the employers, encouraged by the work they had done, and in the hope of realizing still greater gains, inaugurated a scheme to reduce the wages of the tailors.

Among those who had been carefully scanning the field of operations, and studying the signs of the times, were the garment cutters of Philadelphia, who, as soon as the movement in favor of a reduction of wages made itself visible, called a meeting in the autumn of 1862, and passed resolutions which declared that they were entitled to a fair compensation for labor done, and would accept nothing less. From this meeting grew the organization afterward known as the "Garment Cutters' Association of Philadelphia." It grew in strength and influence. It had on the roll of membership some of the ablest men who toiled for a living in Philadelphia; and it was particularly fortunate in selecting for the first corps of officers the best and brightest men in the craft.

The care and attention which had been displayed in the election of the first set of officers became a precedent by which officers were chosen at following elections, and gave to the association a standing among the garment cutters which it would not otherwise have had. This association continued in existence for a number of years.

Having served the purposes for which it was first organized, it became a beneficial association, taking care of the sick and disabled members, and assisting many members of the trade who were not in affiliation with the association. In the early spring of 1869, a lack of interest having manifested itself among the members, it was deemed advisable by some to introduce new features, and make some changes which innovations in work-shop regulation seemed to demand.

One Sunday afternoon two members of the association, Uriah S. Stephens and Henry L. Sinexon, met by appointment, and took a walk in the direction of League Island. While sauntering along, Mr. Stephens complained bitterly of the lack of interest manifested by the members of the Garment Cutters' Association; he said:

"There is more discussion in the cutting-rooms the day after a meeting than there is at any of the meetings. There is very little interest manifested in the welfare of the society. The members do not seem to have any conception of what organization means. I have been making an effort to have something done that will be of interest to our people, but am becoming disgusted with the manner in which they receive it. The organization can not last long; it will go to pieces, and I want to get together some of the broad, thinking members and see if some-

thing can not be done to formulate a plan to prevent this loud talking in the cutting-rooms. Why, the floor-walkers, who are not connected with the society in any way, carry every day to the counting-rooms all that has been done in our organization, and they pick it up by hearing our loose-mouthed members discussing it at the bench."

Mr. Sinexon asked his companion if he had given any thought to the formulation of any plans; the reply was: "No, but I am determined to make an effort to institute something different. When the dissolution takes place I shall make an effort to get some good men together and originate something that will be different from what we have ever had."

Mr. Sinexon then discussed the features of the various societies with which he was connected, and contrasted their aims and methods with those of the association of garment cutters. He said: "I have been looking all my life for something that will be advantageous to the masses; something that will develop more of charity, less of selfishness; more of generosity, less of stinginess and meanness—than the average society has as yet disclosed to its members. I can not find it, for from none of the societies with which I am connected can I carry home the feeling that I would wish to bring with me. We want to establish a society that will place manhood and its needs at the forefront instead of the dollar he pays in."

In this way these two men discussed various measures of reform for several hours, and finally parted with the understanding that each was to invite a chosen few to meet at a certain spot in Fairmount Park on the following Sunday. The meeting in the park was attended by eight or nine of the older and more reliable of the Garment Cutters' Association. They agreed to draw up plans for the organization of a new order, and to submit them at a subsequent meeting. On several Sundays these meetings were held in the park. The men who met would take three of the park benches and place them in the form of a triangle. They would then sit on the inside of the triangle, and each one would read off the plans he had drawn up during the week. Mr. Stephens usually occupied the post of honor in the center, and at the close of each meeting all papers would be placed in his possession for consideration. Should it happen to rain while they were in session, they would seek the shelter of one of the park buildings, and there continue to perfect their plans. They continued to meet in this way for months. When the weather grew too cold for them to meet in the park they held their sessions in the homes of the members until their plans were well matured.

On December 9, 1869, a resolution was offered at a meeting of the Garment Cutters' Association: "To dissolve and divide the funds among the members in good standing." The motion met with but little opposition, and its passage was practically unanimous.

Immediately after the dissolution of the Garment Cutters' Association, several members from among those who had made a study for

several months of the best means of inaugurating a new movement among the garment cutters, met in the hall of the American Hose Company, on Jayne street, below Seventh, and proceeded to organize by electing Jas. L. Wright as temporary chairman, and Robert McCauley as temporary secretary. After a free and deliberate discussion of the subject of organization, the question was put to each person present: "Have you any objections to connect yourself with a secret organization?" The following answered in the negative by stating that they had no objections to offer: James L. Wright, Wm. H. Phillips, U. S. Stephens, Robert McCauley, William Cook, James M. Hilsea, Joseph S. Kennedy, Robert W. Keen, and David Westcott.

Mr. Keen was then placed in charge of the door, a pledge of secrecy was administered to all present, and a password was given out to be used on subsequent occasions. Various plans were considered, and the measures which had been under discussion for months by the few who had busied themselves with the work of bringing the new order into being, were referred to a committee consisting of U. S. Stephens, R. W. Keen, David Westcott, Joseph S. Kennedy, James M. Hilsea, James L. Wright, and Robert McCauley, with instructions to meet and prepare, from the documents placed in their possession, a secret work, such as would be suitable for the government of such a body. It was agreed at this meeting that no further mention would be made to any one who was not present, except those who had taken part in the preliminary discussions, which had taken place in the park and at other places.

When that meeting adjourned it was to meet again in the same hall on the 23rd of December of the same year. When the second meeting was called to order, the committee on secret work made a partial report, which was the only subject discussed. James L. Wright occupied the chair at this meeting.

The third meeting was held at the house of Jos. S. Kennedy, on December 28, 1869. At this meeting the name of the new association was made a subject for discussion, and it was decided to call it The Knights of Labor, and the local name of the body was to be Garment Cutters' Assembly.

Aims of the Knights of Labor

Preamble

2.[1] The recent alarming development and aggression of aggregated wealth, which, unless checked, will invariably lead to the pauperization and hopeless degradation of the toiling masses, render it imperative, if we desire to enjoy the blessings of life, that a check should be placed upon its power and upon unjust accumulation, and a system adopted which will secure to the laborer the fruits of his toil; and as this much-desired object can only be accomplished by the thorough unifica-

[1] Powderly, T. V., *Thirty Years of Labor*, pp. 243–245, Columbus, Ohio, 1889.

tion of labor, and the united efforts of those who obey the divine injunction that "In the sweat of thy brow shalt thou eat bread," we have formed the * * * * * with a view of securing the organization and direction, by co-operative effort, of the power of the industrial classes; and we submit to the world the object sought to be accomplished by our organization, calling upon all who believe in securing "the greatest good to the greatest number" to aid and assist us:—

I. To bring within the folds of organization every department of productive industry, making knowledge a standpoint for action, and industrial and moral worth, not wealth, the true standard of individual and national greatness.

II. To secure to the toilers a proper share of the wealth that they create; more of the leisure that rightfully belongs to them; more societary advantages; more of the benefits, privileges, and emoluments of the world; in a word, all those rights and privileges necessary to make them capable of enjoying, appreciating, defending, and perpetuating the blessings of good government.

III. To arrive at the true condition of the producing masses in their educational, moral, and financial condition, by demanding from the various governments the establishment of bureaus of Labor Statistics.

IV. The establishment of co-operative institutions, productive and distributive.

V. The reserving of the public lands—the heritage of the people—for the actual settler;—not another acre for railroads or speculators.

VI. The abrogation of all laws that do not bear equally upon capital and labor, the removal of unjust technicalities, delays, and discriminations in the administration of justice, and the adopting of measures providing for the health and safety of those engaged in mining, manufacturing, or building pursuits.

VII. The enactment of laws to compel chartered corporations to pay their employes weekly, in full, for labor performed during the preceding week, in the lawful money of the country.

VIII. The enactment of laws giving mechanics and laborers a first lien on their work for their full wages.

IX. The abolishment of the contract system on national, State, and municipal work.

X. The substitution of arbitration for strikes, whenever and wherever employers and employes are willing to meet on equitable grounds.

XI. The prohibition of the employment of children in workshops, mines, and factories before attaining their fourteenth year.

XII. To abolish the system of letting out by contract the labor of convicts in our prisons and reformatory institutions.

XIII. To secure for both sexes equal pay for equal work.

XIV. The reduction of the hours of labor to eight per day, so that

the laborers may have more time for social enjoyment and intellectual improvement, and be enabled to reap the advantages conferred by the labor-saving machinery which their brains have created.

XV. To prevail upon governments to establish a purely national circulating medium, based upon the faith and resources of the nation, and issued directly to the people, without the intervention of any system of banking corporations, which money shall be a legal tender in payment of all debts, public or private.

Excerpt from the Initiation Ceremony

3.[1] On behalf of the toiling millions of earth, I welcome you to this Sanctuary, dedicated to the service of God, by serving humanity. Open and public associations having failed, after a struggle of centuries, to protect or advance the interest of labor, we have lawfully constituted this Assembly. Hid from public view, covered by an impenetrable veil of secrecy (not to promote or shield wrong doing) but to shield ourselves and you, from persecution and wrong by men in our own sphere and calling, as well as others out of it, when we endeavor to secure the just reward of our toil. In using this power of organized effort and co-operation, we but imitate the example of capital heretofore set in numberless instances. In all the multifarious branches of trade, capital has its combinations, and whether intended or not, it crushes the manly hopes of labor and tramples poor humanity in the dust. We mean no conflict with legitimate enterprise, no antagonism to necessary capital, but men in their haste and greed, blinded by self interest, overlook the interests of others and sometimes even violate the rights of those they deem helpless. We mean to uphold the dignity of labor, to affirm the nobility of all who live in accordance with the ordinance of God, "in the sweat of thy brow shalt thou eat bread." We mean to create a healthy public opinion on the subject of labor, (the only creator of values or capital) and the justice of its receiving a full, just share of the values or capital it has created. We shall, with all our strength, support laws made to harmonize the interests of labor and capital, for labor alone gives life and value to capital, and also those laws which tend to lighten the exhaustiveness of toil. We shall use every lawful and honorable means to procure and retain employ for one another, coupled with just and fair remuneration, and should accident or misfortune befall one of our number, render such aid as lies within our power to give, without inquiring his country or his creed; and without approving of general strikes among artisans, yet should it become justly necessary to enjoin an oppressor, we will protect and aid any of our number who thereby may suffer loss, and as opportunity offers, extend a helping hand to all branches of honorable toil. Such is but an epitome of our objects.

[1] Given also in Commons, J. R., *et al., A Documentary History of American Industrial Society,* vol. x, pp. 23–24.

Genesis of the American Federation of Labor

4.[1] Our committee issued a call to national and International trade unions to send delegates to a conference to be held in Columbus, Ohio, Dec. 8, 1886.

In a conference between McGuire, Kirschner, and me it was determined that the Federation of Trades and Labor Unions should meet at the same time and place in order that the delegates of affiliated organizations could meet with representative officials of the unaffiliated national unions to discuss the whole situation and formulate a policy and program. All were convinced that the old Federation could not do the effective work required. We needed a consolidated organization for the promotion of trade unionism under which work could go forward daily for the organization of all workers of America skilled as well as unskilled. We needed a central office and officers who could give all their time to the Federation work. The old Federation was committed to relief by legislation. As year by year we learned the inadequacy of our program, we tried to revise our constitution to authorize action in the economic field. Now the time had come to stop patchwork, and rebuild. We had learned the need of an alliance for defense and mutual help.

Druid Hall was the meeting place of both the annual congress of the Federation and the trade union conference, the Federation convening on the seventh and the conference on the eighth. All persons attending the congress also participated in the conference. The congress was to suit its action to the decisions and the plans of the conference. It was important to direct its course so that it should contribute to complete amalgamation. John S. Kirschner, J. F. Maloney, and I represented the C. I. U. in the congress, and with the addition of Strasser, were our delegates to the conference.

As chairman of the Legislative Committee I opened the congress. We organized for business and heard the report of the Legislative Committee, and extended the courtesies of our sessions to the trade union conference. When the trade union conference met on December 8, the Federation resolved itself into a Committee of the Whole to participate in the conference. John McBride of the National Federation of Miners was made chairman.

During the first day's session of the Federation, a telegram was received from Mr. Powderly giving the names of five Knights of Labor appointed to discuss trade union differences. Our Trade Union Committee met with them and found that they had not even the power of recommendation and that they declared the "treaty" had been rejected at Cleveland. The K. of L. committee suggested nothing but absorption by the K. of L. and loss of trade autonomy. The Order

[1] Gompers, Samuel, *Seventy Years of Life and Labor,* vol. i, pp. 264–265, 268–272, New York, 1925. Reprinted by permission of E. P. Dutton & Co., Inc.

had reached a stage of intoxication with power that prevented clear thinking and wise action.

. . . . . .

The Columbus meetings unanimously decided that a Federation should be formed and that all trade union organizations should be eligible, whether affiliated or unaffiliated to the Federation of Trades and Labor Unions, and the conference appointed a committee of five to confer with a committee from the Federation of Trades and Labor Unions. Acting under instructions from the Federation, I met this committee and stated the Federation had resolved to turn over all moneys, papers, and effects to the new American Federation of Labor, requesting only the publication of our Legislative Committee's report. Then the officers and delegates of the old Federation disbanded or merged in with the new Federation which was organized under the title of the American Federation of Labor. The revenue for the Federation work was to be derived from a per capita tax of one-half cent per member per month.

The convention provided for a president with a salary of $1,000 per year and added as part of its constitution "that the president shall devote his entire time to the interests of the Federation." I was nominated for president but I was greatly disinclined to accept any salaried labor office and therefore declined. John McBride of the Miners was nominated and he frankly stated that he could not afford to accept a position to which he would have to devote his entire time upon such a meager salary. The office fairly went begging and finally I was again nominated and persuaded in the interest of the movement to accept the nomination and election. That was the first salaried office I held in the labor movement. I knew the poverty of the wage-earners and I did not like to think of accepting money for the service I gave them. The convention elected as the other officers of the Federation: George Harris and J. W. Smith, vice-presidents; P. J. McGuire, secretary; and Gabriel Edmonston, treasurer. The new Federation had been technically created, it remained for the executive officers to give it reality and effectiveness. The E. C. met in the U. S. Hotel, following the adjournment of the convention. We authorized a Federation seal; the payment of one hundred dollars as annual salary to the treasurer; the publication of an official monthly journal to be sold for fifty cents per year; the issuance of charters by the president when no protest was involved. We directed the president to attend a meeting of the state Labor Board of Connecticut, to help in forming a state Federation of Labor; and finally we authorized the president to hire an office boy—and the Federation took on the form of permanence.

This was in November and the constitution was to go into effect on March 1 of the following year, and so there was no salary paid me for the intervening months. It was a difficult economic struggle

for me to devote my entire time for those months without receiving salary or compensation for I had a wife and six children in addition to myself to support. Somehow I managed through it all. My family and I just put ourselves in the psychological position of a strike or lockout and somehow the period was tided over. It was a bit hard to arrange for the family budget, but mother never complained although there was a large family to care for. We simply did the best we could.

In the months following my return from Columbus I began to realize the problem before me. A new organization had been created of which I was the responsible executive, and therefore its success devolved chiefly upon me. I was instructed to give my full time to the work, but money for salary and office expenditures would not be available until the constitution went into effect—about three or four months later. With no money to tide over the transitional period I had to plan to get along the best way possible. As editor of the *Picket* I had used a small shed room which Union No. 144 rented in addition to three others, and it was readily arranged that the room should continue at my disposal without charge.

I was president of a Federation that had been created but yet had to be given vitality. I felt that the trade union movement stood or fell with the success of the Federation and gave everything within me to the work. The new movement had to establish itself as a working agency. This could be done only by rendering service and establishing a reputation for ability to do things. To accomplish these ends I had to be active in labor matters, not only in New York, but in as wide a field as I could reach. What I could do was so terribly restricted by finances that I was constantly chafing. The story of the struggle can never be told. Early officers of trade union organizations had no such office rooms, equipment, and staff assistants as are now the rule with every national or international organization. In the pioneer days many carried their offices in their coat pockets during the day while they earned a living at their trades and gave such time as they could in the evenings to official business.

The new idea of united action by all the trades, which the Federation represented, had to make its way slowly by earning a place for itself in the minds and experiences of all workers. It got such scanty support as could be drawn from meager funds after they had served the urgent and manifold needs of the trade. The central trade office had only such equipment as was indispensable, and the Federation had less.

The first little office, which was about ten by eight, had a door, a small window, and a brick floor. It was cold in winter and hot in summer. The furniture was a make-shift, consisting of a kitchen table brought down from our scanty house furnishings and a box for my chair. My second boy, Henry, who helped me when not in school, and who now takes great pride in the fact that he was the first office boy of the Federation, helped to contrive office furnishings. My daughter,

Rose, had a child's writing desk that someone had given her. Henry took this down to the "office," put legs under it, and nailed it to the wall under the window. Thus equipped, with a box for a seat, Henry was busy during the summer all day long writing wrappers for the paper and doing many errands. He devised files for the office. Just across the street was a grocery store, the friendly proprietor of which contributed empty tomato boxes which Henry transformed into files. Our filing system was very simple. I personally marked each letter, circular, or pamphlet and Henry filed according to the designated subjects. As I was eager for information and had a reverence for the printed word, we soon collected a quantity of valuable information. One essential I had to buy during the first fall was a stove and pipe which cost $8.50. So I managed for a few months.

Principles and Organization of the American Federation of Labor, 1918

Principles

5.[1] "Whereas, a struggle is going on in all the nations of the civilized world between the oppressors and the oppressed of all countries, a struggle between the capitalist and the laborer, which grows in intensity from year to year, and will work disastrous results to the toiling millions if they are not combined for mutual protection and benefit;

"It, therefore, behooves the representatives of the Trade and Labor Unions of America, in convention assembled, to adopt such measures and disseminate such principles among the mechanics and laborers of our country as will permanently unite them to secure the recognition of rights to which they are justly entitled.

"We, therefore, declare ourselves in favor of the formation of a thorough Federation, embracing every Trade and Labor Organization in America, organized under the Trade Union system."

Objects.—"Section 4. An American Federation of all National and International Trade Unions, to aid and assist each other; to aid and encourage the sale of union label goods, and to secure legislation in the interest of the working people, and influence public opinion, by peaceful and legal methods, in favor of organized labor."

Economic Platform

1. The abolition of all forms of involuntary servitude, except as punishment for crime.

2. Free schools, free textbooks and compulsory education.

3. Unrelenting protest against the issuance and abuse of injunction process in labor disputes.

[1] Trachtenberg, Alexander (ed.), *The American Labor Year Book, 1917–1918,* pp. 59–60, New York, 1918. Reprinted by permission of the publishers.

4. A work day of not more than eight hours in the twenty-four hour day.

5. A strict recognition of not over eight hours per day on all Federal, State or municipal work, and not less than the prevailing per diem wage rate of the class of employment in the vicinity where the work is performed.

6. Release from employment one day in seven.

7. The abolition of the contract system on public work.

8. The municipal ownership of public utilities.

9. The abolition of the sweat-shop system.

10. Sanitary inspection of factory, workshop, mine and home.

11. Liability of employers for injury to body or loss of life.

12. The nationalization of telegraph and telephone.

13. The passage of anti-child labor laws in states where they do not exist and rigid defense of them where they have been enacted into law.

14. Woman suffrage co-equal with man suffrage.

15. Suitable and plentiful playgrounds for children in all cities.

16. The Initiative and Referendum and the Imperative Mandate and Right of Recall.

17. Continued agitation for the public bath system in all cities.

18. Qualification in permits to build of all cities and towns, that there shall be bathrooms and bathroom attachments in all houses or compartments used for habitation.

19. We favor a system of finance whereby money shall be issued exclusively by the Government, with such regulations and restrictions as will protect it from manipulation by the banking interests for their own private gain.

Character

The character of the American Federation of Labor, which was organized in 1881, though not named "A. F. of L." until five years afterwards, was influenced to no small extent by the character of its predecessor—the *Knights of Labor*. This organization, which reached its zenith in 1886, came to grief largely because of its combining in the local assemblies laborers of all varieties and many employers and non-wage-earners; its dual organizations of labor assemblies and trade assemblies; its over centralization; its frequent participation in sympathetic strikes and its peculiar political ventures.

The A. F. of L. desired to avoid these pits. It, therefore, sought to preserve the distinctive character of each trade, kept out, at least at first, of politics; eliminated the dual organization and organized a loose federation of trades, in which the component parts have complete liberty of action.

The A. F. of L. is in reality a federation. Local unions are generally affiliated with it through the nationals. At the end of 1917 it contained 111 national and international unions, 45 state federations, 762 city

central bodies, 845 local trade and federal labor unions, 26,761 local unions, 5 department and 441 local department councils. Its membership was reported as 2,371,434.

The real factors in the conduct of the Federation are the conventions, called annually on the second Monday of November—between election and the opening of congress. National and international organizations are represented therein by one delegate for approximately every 4,000 members.

The officers of the Federation are a president, eight vice-presidents, a secretary and a treasurer, each elected the last day of the convention. All elected officers must be members of unions connected with the Federation. The responsible administrative work rests with the Executive Council, composed of the eleven officers. The council watches legislative measures, initiates legislation, schedules speakers and performs many necessary administrative tasks.

National and international unions must pay to the Federation two-thirds of one cent per member per month; local trade unions and federal trade unions, ten cents, five cents of which must be set aside for strikes, etc. State and Central bodies pay $10 per year. All national unions are supposed to instruct their locals to join the Central labor bodies and state organizations in their vicinities. Seven wage workers of good character favorable to trade unionism, whose trade is not organized and who are not members of any body affiliated with the Federation, may form a local body to be known as a "Federal Labor Union."

The State Federations look after legislation in their respective states and urge more effective organization among the workers. The city councils—meeting generally once a week and composed of representatives from the various locals in their vicinity—look after the general organized labor interests of their respective communities.

The federation also possesses five departments whose objects it is to get various unions to co-operate for mutual advantage—the Union Label, the Building Trades, the Metal Trades, the Railway Employees, and the Mining Departments. Each department, after its establishment, supports itself and manages its own affairs, and has its representative at the meetings of the Executive Council.

The Union Label Department, organized in 1909 for the purpose of inducing unions to have the label placed on their products and unionists to purchase goods bearing the union label, had affiliated with it in 1915, 39 national and international unions. The Bakery & Confectionery Workers were reported to have issued during the year 630,170,000 labels, and the tobacco workers, 446,794,950. The department, in its educational campaign, issued 200,000 pieces of literature, scheduled a number of stereopticon lectures, held union label exhibits, etc.

The Building Trades Department, organized in 1908—though an evolution from a similar organization formed in 1903—contains most

of the trades engaged in building, and the Metal Trades, those in the metal industries. The Mining Department contains the United Mine Workers, Western Federation of Miners, Brotherhood of Steam Shovel and Dredgemen, Iron, Steel, and Tin workers, and the Machinists.

Although most of the unions connected with the Federation are trade organizations, there are a few industrial unions, including the United Mine Workers, the Brewery Workers, and there is ever more discussion regarding industrial unionism in the ranks of organized labor.

Growth of Membership

The average paid up and reported membership for 1917 was 2,371,434, the largest total membership of the organizations affiliated to the American Federation of Labor since the foundation of the Federation.

National and international organizations are required to pay per capita tax only upon their full paid-up membership, and therefore the 2,371,434 membership reported does not include the members involved in strikes and lockouts, or those who were unemployed during the fiscal year, for whom tax was not received.

Year	Membership	Year	Membership
1897	264,825	1901	787,537
1898	278,016	1902	1,024,399
1899	349,422	1903	1,465,800
1900	548,321	1904	1,676,200
1905	1,494,300	1912	1,770,145
1906	1,454,200	1913	1,996,004
1907	1,538,970	1914	2,020,671
1908	1,586,885	1915	1,946,347
1909	1,482,872	1916	2,072,702
1910	1,562,112	1917	2,371,434
1911	1,761,835		

Philosophy of the I. W. W.—Preamble to the Constitution as Amended at the Convention of 1908

6.[1] The working class and the employing class have nothing in common. There can be no peace so long as hunger and want are found among millions of working people and the few, who make up the employing class, have all the good things of life.

Between these two classes a struggle must go on until the workers of the world organize as a class, take possession of the earth and the machinery of production and abolish the wage system.

We find that the centering of management of industries into fewer and fewer hands makes the trade unions unable to cope with the ever-growing power of the employing class. The trade unions foster a state of affairs which allows one set of workers to be pitted against another

[1] St. John, Vincent, *The I. W. W. Its History, Structure and Methods*, pp. 8–9.

set of workers in the same industry, thereby helping defeat one another in wage wars. Moreover, the trade unions aid the employing class to mislead the workers into the belief that the workers have interest in common with their employers.

These conditions can be changed and the interest of the working class upheld only by an organization formed in such a way that all its members in any one industry, or in all industries, if necessary, cease work whenever a strike or lockout is on in any department thereof, thus making an injury to one an injury to all.

Instead of the conservative motto, "A fair day's wage for a fair day's work," we must inscribe on our banner the revolutionary watchword, "Abolition of the wage system." It is the historic mission of the working class to do away with capitalism. The army of production must be organized, not only for the every-day struggle with capitalists, but to carry on production when capitalism shall have been overthrown. By organizing industrially we are forming the structure of the new society within the shell of the old.

Songs of the I. W. W.

7.[1] Paint 'er Red

BY RALPH CHAPLIN

(Tune: "Marching Through Georgia")

Come with us, you workingmen, and join the rebel band;
Come, you discontented ones, and give a helping hand,
We march against the parasite to drive him from the land.
With One Big Industrial Union!

Chorus

Hurrah! Hurrah! we're going to paint 'er red!
Hurrah! Hurrah! the way is clear ahead—
We're gaining shop democracy and liberty and bread
With One Big Industrial Union!

. . . . . .

"Slaves" they call us, "working plugs," inferior by birth,
But when we hit their pocketbooks we'll spoil their smiles or mirth—
We'll stop their dirty dividends and drive them from the earth
With One Big Industrial Union!

We hate their rotton system more than any mortals do.
Our aim is not to patch it up, but build it all anew,
And what we'll have for government, when finally we're through,
Is One Big Industrial Union!

[1] From *Songs to Fan the Flame of Discontent* (14th edition), reprinted in Brissenden, Paul F., *The I. W. W. A Study of American Syndicalism*, Appendix IX.

Casey Jones—The Union Scab [1]

BY JOE HILL

The Workers on the S. P. line to strike sent out a call;
But Casey Jones, the engineer, he wouldn't strike at all;
His boiler it was leaking, and its drivers on the bum,
And his engine and its bearings, they were all out of plumb.

Chorus

Casey Jones kept his junk pile running;
Casey Jones was working double time;
Casey Jones got a wooden medal,
For being good and faithful on the S. P. line.

The Workers said to Casey: "Won't you help us win this strike?"
But Casey said: "Let me alone, you'd better take a hike."
Them some one put a bunch of railroad ties across the track,
And Casey hit the river with an awful crack.

Casey Jones hit the river bottom;
Casey Jones broke his blooming spine,
Casey Jones was an Angeleno,
He took a trip to heaven on the S. P. line.

When Casey Jones got up to heaven to the Pearly Gate
He said: "I'm Casey Jones, the guy that pulled the S. P. freight."
"You're just the man," said Peter; "our musicians went on strike;
You can get a job a-scabbing any time you like."

Casey Jones got a job in heaven;
Casey Jones was doing mighty fine;
Casey Jones went scabbing on the angels,
Just like he did to workers on the S. P. line.

The angels got together, and they said it wasn't fair,
For Casey Jones to go around a-scabbing everywhere.
The Angels' Union No. 23, they sure were there,
And they promptly fired Casey down the Golden Stair.

Casey Jones went to hell a-flying.
"Casey Jones," the Devil said, "Oh, fine;
Casey Jones, get busy shoveling sulphur;
That's what you get for scabbing on the S. P. line."

[1] *Songs to Fan the Flame of Discontent* (5th edition, Spokane, Wash.), p. 1; also in Brissenden, *op. cit.*, Appendix IX.

Attitude of the National Association of Manufacturers on Labor (1904)

8.[1] 1. Fair dealing is the fundamental and basic principle on which relations between employes and employers should rest.

2. The National Association of Manufacturers is not opposed to organizations of labor as such, but it is unalterably opposed to boycotts, black-lists and other illegal acts of interference with the personal liberty of employer or employe.

3. No person should be refused employment or in any way discriminated against on account of membership or non-membership in any labor organization, and there should be no discriminating against or interference with any employe who is not a member of a labor organization by members of such organizations.

4. With due regard to contracts, it is the right of the employe to leave his employment whenever he sees fit, and it is the right of the employer to discharge any employe when he sees fit.

5. Employers must be free to employ their work people at wages mutually satisfactory, without interference or dictation on the part of individuals or organizations not directly parties to such contracts.

6. Employers must be unmolested and unhampered in the management of their business, in determining the amount and quality of their product, and in the use of any methods or systems of pay which are just and equitable.

7. In the interest of employes and employers of the country, no limitation should be placed upon the opportunities of any person to learn any trade to which he or she may be adapted.

8. The National Association of Manufacturers disapproves absolutely of strikes and lock-outs, and favors an equitable adjustment of all differences between employers and employes by any amicable method that will preserve the rights of both parties.

9. Employes have the right to contract for their services in a collective capacity, but any contract that contains a stipulation that employment should be denied to men not parties to the contract is an invasion of the constitutional rights of the American workman, is against public policy and is in violation of the conspiracy laws. This Association declares its unalterable antagonism to the closed shop and insists that the doors of no industry be closed against American workmen because of their membership or non-membership in any labor organization.

10. The National Association of Manufacturers pledge itself to

[1] *Proceedings of the Ninth Annual Convention of the National Association of Manufacturers of the United States of America held at Pittsburgh, Pa., May 17, 18, and 19, 1904,* pp. 173–174. New York City, 1904.

Editor's Note.—Founded in 1895, the National Association of Manufacturers has led in America the opposition to organized labor, and devoted its chief energy to fighting certain practices of labor and in combating the general advance of labor organizations.

oppose any and all legislation not in accord with the foregoing declaration.

Opposition to the Closed Shop (1906)

9.[1] No association ever chose a more useful field of effort than that chosen by the National Association of Manufacturers. In rallying the forces of individualism, to hold in check the forces controlled by the political and labor demagogues, it has rendered a service to the nation of the first magnitude. Only a few years ago trades unionism unrestrained and militant was rapidly forcing the industries of the country to a closed shop basis. It was almost a crime to criticise the unions. Although their prime object was to overthrow the system of compensation based on individual effort and merit and to substitute a system based on organized physical force and government fiat, yet they enjoyed the sympathy and the encouragement of the public. Simply because the unions professed to represent labor, thousands of well-meaning citizens seemed to take it for granted that they could do no wrong. All the strikes were righteous, and the employers were grasping taskmasters grinding the men under their heels. The press, the politicians and public officials seemed to vie with each other to court the favor of the union buccaneers. But a change has come and this Association is largely responsible for it. The strike is no longer popular. When the unions propose to tie up an industry the press is now generally disposed to argue the question judicially and diplomatically. When an independent workman, a "scab," if you please, is mysteriously assaulted the police are much more active than formerly in running down his assailant. When lawmakers are threatened with political death unless they vote for semi-socialistic legislation they discuss the matter and look up the constitution. Disciples of the gospel of regenerating society through violence and murder are occasionally even sent to jail. What has brought about these changes? The question can be answered in one word—Organization.

Organizations inimical to the country's welfare make counter organization imperative. A propaganda of evil is to be neutralized only by a propaganda of good. Organized effort to keep public officials from enforcing the law must be met by organized effort of an opposite character. Judges who base their decisions upon the law and the constitution are entitled to organized moral support when they are singled out for denunciation by organized lawbreakers. The members of Congress and the legislatures cannot be expected to stand alone in resisting organized coercion to compel them to enact socialistic or semi-socialistic legislation. The necessity for effective work for the

[1] Speech of President David M. Parry of the National Association of Manufacturers of the United States of America at the Eleventh Annual Convention held in New York in May, 1906. *Proceedings of the Eleventh Annual Convention of the National Association of Manufacturers of the United States of America,* pp. 15–18. (New York, 1906.)

protection of individualism is apparent all over the country and the only method for the accomplishment of this work is through organization. The results achieved through organization in widely extending the open shop, in changing public opinion and in preventing iniquitous legislation during the past year are proofs of the power of organization. It should be our purpose to develop this work of organization to the fullest possible degree. Much has been done already, but much yet remains to be done.

It is a mistake to assume that this movement for organization is directed against organized labor as such. It is not the purpose to disband or crush the unions. But it is the purpose to prevent them from working injury to the common welfare. Labor organizations rightly conducted have a wide field of usefulness in broadening the minds of labor and in promoting good citizenship, but they must learn that they cannot arrogate to themselves a license to override the liberties of others or to stop the wheels of industry at their pleasure. They must be taught the limitations of their power and reform themselves into agencies for good instead of evil.

During the recent negotiations between the miners and the operators, when it seemed likely there would be a general strike in both the bituminous and anthracite fields, the old cry for government arbitration or for seizure of the mines and their operation and ownership by the government was raised. I wish to assert it as my opinion at least that socialistic propositions such as these are to be utterly condemned and that those who favor them have no proper understanding or respect for the basic liberties of the country. The only intervention that can be justified on the part of the government, national or local, in any labor difficulty is that of compelling a rigid observance of individual liberty and the public rights based on that liberty. The government is proceeding against combinations of capital charged with being trusts—let it also proceed against combinations of labor that are the most obvious trusts of the day.

It is my belief that an organization the purpose of which is to prevent men from working who do not belong to it, and to prevent industry from being carried on except under submission to its terms, is an unlawful combination and can be abolished by proper appeal to the courts. Why in free America should part of the wages of the bituminous miners, union and non-union, be confiscated by the operators and paid into the treasuries of the miners' union at the command of John Mitchell's organization? Why should it be impossible in a large part of the coal territory for an American citizen to work as a miner unless he abdicates his liberties and becomes a subject of the labor trust? Is not a contract, forced upon operators in half a dozen states to employ only union men and to pay a prescribed price for labor, in restraint of interstate commerce? At the present time we behold the spectacle of a large number of bituminous operators in the central states being prevented from doing business

because they will not accede to the terms laid down by a combination of the miners' organization and certain operators whose properties are principally outside the central states. I believe that this Association could perform a signal service for the country by employing legal talent to proceed in the courts against the miners' union. Every year or two years this trust threatens to paralyze the entire industry of the nation, and gradually its power grows, becoming from year to year a greater and greater menace to the peace and stability of the republic. Sooner or later something will have to be done to bring it under subjection to the laws of the country and it would seem that now is as good a time as any to begin the necessary proceedings.

To those who claim that it is expedient to allow the United Mine workers of America the license to violate law in order to prevent starvation wages I assert that the doctrine is not only that of anarchy but also that it is based on woeful ignorance of the economic law of wages. The truth is that free competitive conditions in the labor market, that is, that under conditions where individual liberty is properly enforced, wages in all industries tend constantly to the highest possible figure, being dependent upon the productivity of the nation and not upon the caprice or greed of employers. A labor trust succeeds in increasing the wages of its members only at the expense of the rest of the labor of the country and not at the expense of the employer. The price of the product is advanced when wages are advanced, for the employers will not carry on business at a loss, and when the price advances to the consumers there are fewer consumers able to buy and there is a corresponding decrease in the production. The employer does less business—that is the only way in which he is affected to any considerable degree. In time it is to be hoped the public will wake up to the fact that the miners' trust means higher and higher prices for coal in order to give the members of the trust wages beyond the just level fixed by supply and demand and also to the further fact that a labor trust of the dimensions of John Mitchell's is a dangerous institution in a free country. If labor in one industry can form a trust then labor in all other industries can do likewise, and if this were done we would soon have a despotism of socialism in full operation. The teamsters in Chicago a year ago attempted to operate a trust of their own on the same lines as that of the miners, but the great strike which it precipitated was ended by the activity of the organized employers to compel the enforcement of law and the trust went down in the establishment of the open shop principle. The printers' trust is now waging a strike in many of the cities of the country, and by organized effort on the part of employers to compel law enforcement and to educate men heretofore barred out of the trade by the union, the open shop is being substituted in many plants for the closed shop established by the trust. And the open shop, not merely a theoretical open shop but a working open shop, can be established in the mining industry if proper efforts are made to restore liberty

in the mining country and to put an end to the joint agreement closed shop system which, extending over a number of states, makes competition impossible and fastens a monopoly upon the people which surely is without sanction of the law.

Newer Developments in Employers' Technic

10.[1] The wide range of welfare expedients now employed by American employers constitutes a definite challenge to the trade union movement. Corporations, large and small, have in recent years adopted a most extensive variety of devices which—taken at their face value—are designed to make the lot of the worker in industry more humane, comfortable, and agreeable, and to make the worker himself more loyal and obedient to the corporation.

Among the activities, usually set up and supervised by a labor manager, a service or personnel director, are such as the following: employees' mutual benefit associations, with sickness and other benefit features, works councils, shop committees or employee representation plans—these three being known to the trade union movement as company unions—profit sharing and bonuses, company insurance and pensions, company magazines, stock subscription plans, thrift schemes, building and loan plans, safety and sanitation committees—and a hundred more variations of the welfare theme, such as service pin associations, veterans' club, athletic teams, payroll propaganda slips, and even country clubs and company brass bands.

Some corporations develop this program very extensively in the attempt to make the plant the source and center of all good things in the worker's social life. In this way they hope to bring in what they term the "new era in industry." The "golden rule" and "the corporation with a soul" are other terms used by enthusiastic supporters of this approach to the "man problem" in industry.

In establishing the various plans and services for the workers, employers are not moved to any great extent by humanitarian or altruistic considerations. They expect from these activities concrete benefits to the business, in other words, bigger profits, more and cheaper production. As a rule they hope to realize such benefits in the form of reduced labor turnover, long service records, enhanced loyalty, contentment and morale, as well as freedom from labor troubles, increased productivity, lessened labor cost, and ample labor supply at all times. The employer may also have in mind the acquirement of a reputation in the community as a "progressive" employer, one who emphasizes the "service" ideal and who may perhaps gain considerable advertising advantage from the proper capitalization of this idea. Witness the excellent copy prepared for the Standard Oil Company of Indiana

[1] Dunn, Robert W., "Newer Developments in Employers' Technic," in *New Tactics in Social Conflict,* edited by Harry W. Laidler and Norman Thomas, pp. 96–102, New York, 1926. Used by permission of the author and the Vanguard Press.

which appears regularly in the advertising section of the *American Federationist.*

On one or more of the above counts the expenditure for welfare and personnel purposes usually justifies itself as a quite profitable investment. Unless it does so it is sooner or later recognized as a liability and abandoned, often in connection with a change in management, as for example, in the case of the American Woolen Company two years ago, and in the case of Morris & Company's consolidation with Armour & Company, meat packers. Persons who have had occasion to look into the cost entailed by specific corporations in carrying out what is known as a "well-rounded welfare program" have found that it comes to but a fraction of the amount that would be necessary to grant the workers a 10 per cent. increase in wages. It may be concluded from this that a carefully conceived and scientific program of service activities is usually a paying proposition if it keeps down agitation and tends to immunize the workers against the temptations offered to them by trade union organizers to seek higher wages, shorter hours, and other substantial benefits to be won through union activity.

The net result of all these activities in many cases seems to be what the employer expects—an increased loyalty to the firm, a greater dependence upon its welfare features, and an acceptance of these features as a part of the payment for the job. This fixation of loyalty upon the employer in just so far alienates the worker from his fellow workers in the industry at large and leads him to identify his individual interests with those of the company rather than with those of his class. The result is what the League for Industrial Rights, calls "factory solidarity" as opposed to "class solidarity."

Company Unions

One of the major devices now employed to achieve company loyalty and eliminate labor agitation is the company union, a term applied by the trade union movement to systems of "employee representation" through works councils, shop committees, and industrial assemblies. Any company-devised program for giving the workers some legislative function concerning even the most insignificant matters or grievances arising in the shop, plant, or works is now given this name. Mutual benefit associations, safety committees and a few other types of associations are usually excluded from the category, but any plan that offers the workers any slight participation in conference, even of the most advisory character, on shop problems is now referred to in the labor movement as a company union.

The company union movement is a war and post-war growth. The joint committees adopted in industrial establishments by various war boards initiated the practice. The achievement of "industrial peace" and the speeding up of war production was the immediate purpose of their introduction. After the war the large labor turnover and the

general success of the device in meeting certain labor problems induced employers to experiment further with them. Certain industrial evangelists helped to popularize the idea among the employers. The result has been a growth in the number of councils, as they are called by the National Industrial Conference Board—the only agency making statistical surveys in this field—from 225, representing 391,400 workers in 1919, to 814, representing 1,177,037 workers in 1924. Since that date the number of workers involved has remained stationary or slightly declined, according to the same authority. There is reason to believe, however, that the Conference Board has not included all the organizations which are now designated as company unions by the official trade union movement. Particularly is this true with reference to the railroad industry.

The railroads have been particularly hit by the growth of company unions, the trade unions affected having been chiefly those of the shop craft workers, the clerks, the maintenance of way men, the telegraphers and, on some roads, the signalmen. However, practically every class of railroad workers, outside of the strongly organized engineer, firemen, trainmen and conductors brotherhoods, has been affected by the rise of "independent associations." Many of these have not been developed as systems of inside employee representation, such as that on the Pennsylvania, but rather as outside associations, fathered and controlled by the company, but sharing many of the forms and functions of the regular trade union of the A. F. of L. type. Typical of this sort are the Associated Organization of Shop Craft Employees on the Great Northern, the Association of Maintenance of Way and Miscellaneous Foremen, Mechanics and Helpers on the Santa Fé System, and the Shop Employees' Association of the Union Pacific System. Altogether more than 60 railroad systems are represented in the list of those having independent associations not in any way affiliated with the A. F. of L. or the four railroad service brotherhoods.

Other industries which have felt the brunt of the company union offensive have been notably public utilities, meat packing, lumbering, rubber products manufacturing, the printing trades, and miscellaneous factory industry. Some of the important American corporations using company unions for all or most of their employees are the Armour, Swift, Wilson, and Cudahy companies, the General Electric Co., the Bethlehem Steel Co. and subsidiaries, the Standard Oil Co., both of New Jersey and Indiana, the Colorado Fuel and Iron Co. (coal mines and steel works), the Goodyear Tire and Rubber Co., the International Harvester Co., the Pacific Mills of Lawrence, the Shell Oil Co. of California, the Pullman Co., the Western Union Telegraph Co., the Phelps Dodge Corporation, the Westinghouse Electric and Manufacturing Co., and the Amoskeag Mills of Manchester, New Hampshire. Company union development has been greatest in large industry, more than half of the million workers in them being covered by establishments

with over 15,000 workers each. Almost all the corporations mentioned above are of this type. Some few of the smaller factories, however, are operated by what are described as "liberal employers" who are said to be inspired by religious, ethical, or conscientious motives in seeking to introduce company unions for the purpose of realizing their conception of "industrial democracy." This, of course, means no surrender of primary property rights to the workers, but permits them, while the employer sticks to the practice of his "social gospel," a certain voice in the minor matters of shop management.

Employer Objectives

What are the employer's objectives in introducing the company union as, admittedly, these schemes are outlined, prepared, and introduced through the initiative and force of the company management and not through the efforts of the workers? First we may mention the benevolent or humanitarian type of employers just referred to. They have a genuine concern for the souls of their workers and are convinced that experimentation with the "freedom and responsibility" permitted under employee representation, is nothing more than their Christian duty. Some of these employers also have a certain scientific interest in seeing the capitalist industrial machine progress with the fewest possible hitches. They consider their schemes of shop committees contributions to the "newer era in personnel relations" as Mr. E. R. Burton calls it in his recent work on *Employee Representation.*

Then we have the more hard-boiled types of employers and corporations which, while perhaps varnishing their motives in much the same verbiage as the really humanitarian employer, are chiefly interested in the company union for the reasons previously stated—to dispose of the existing trade unions and set up relationships with their workers which will eliminate completely the intervention of any outsider in the shape of a trade union official. The history of company unions indicates that a substantial number of the employers, chiefly the larger corporations, have instituted the company union mainly with this objective in mind. Examples that might be cited are the Union Pacific, the New York, New Haven and Hartford, the Pennsylvania, and many other railroads, the Amoskeag Manufacturing Company, the Interborough and Brooklyn-Manhattan Transit Companies in New York, the Milwaukee Electric Railway Light and Power Co. and a host of others.

Then we have a considerable number of companies that have been only sporadically harassed by labor organizers and whose workers have never been successfully organized into trade unions. However, they have been farsighted enough to prepare against the advancing tide of unionism. The Standard Oil interests and the Rockefeller steel mills are of this type, as are the Pacific Mills, the Pullman Company, the Goodyear Tire and Rubber Co. and the International Harvester.

Of course many companies may be said to have installed company

unionism for a mixture of motives. They scarcely fit in any of the categories above mentioned. But whatever the objectives, we know this —that with three or four exceptions, trade unionism recognition has vanished with the advance of the company union. The latter has simply crowded the other out. These two antithetical forms of labor organization and industrial government have not been able to sleep in the same bed, and in 99 cases out of a hundred, the employer has been only too happy to use the "inside" union to put the trade union in the position of "outside looking in."

Unjust Employer Practices, 1883

11.[1] Q. Can you give us some instances of the obnoxious rules of which you speak?—A. Yes; one instance was on the part of a large firm of carriage manufacturers at Rochester, N. Y.—James Cunningham, Sons & Co. Just a year ago this month their men rebelled against certain rules that they had established in their works—rules degrading to human nature. For instance, the faucets in the water sinks were locked up, and when an employe wanted a drink of water he had to go to the foreman of his department and ask for a drink; the foreman went and unlocked the faucet and gave him a cupful of water, and whether that was enough to satisfy his thirst or not, it was all he got. When the men entered in the morning they were numbered by checks. A man lost his identity as a man and took a number like a prisoner in a penitentiary. The checks ran up to five hundred and something. If a man worked in the third or fourth story of the building (it was a large, high building), and if he was an old man—for they had a good many old men doing light work—when the bell rang for dinner he was obliged to walk down several pairs of stairs, take off his check and then walk up stairs again to eat his dinner, and when he got done he had to walk down again and put on the check before the bell rang for afternoon work. In that way they knew just when a man came in or went out. Then, if a man was a piece-worker there, and got through his work at half-past 2 or 3 o'clock, he was not permitted to leave the building until the regular time—6 o'clock. No matter when he got through with his work, he had to stay there in dirt and discomfort, and could not go home or go out until 6 o'clock in the evening. Another obnoxious rule was that if a man was half or even a quarter of a minute late he was shut out. They had a gate and it would be shut down upon a man even when he was going in, sometimes so quickly that he would hardly have time to draw his foot back to keep it from being crushed by the gate, and that man would be kept out until 9 o'clock, so that he would make only three-quarters of a day's work. The rule was that the men had to be *in* the works before the whistle blew.

Q. What was hour at which they were required to be there?—A.

[1] *Report of the Committee of the Senate Upon the Relations between Labor and Capital* (1885), pp. 9–10. Testimony of Robert D. Layton, Grand Secretary of the Knights of Labor, taken February 5, 1883.

Seven o'clock in the morning. Ten hours, I understand, was the length of a day's work there. These rules were exceedingly obnoxious to the men. As I have said, even the piece-worker was locked out or kept in in the same way. The time of a piece-worker is supposed to be his own to a considerable extent, and if he works slowly and does not get out a piece of work promptly, of course he does not get paid for it; but still, they were treated in that establishment as I have stated. That is one instance, and I could name others of a similar character among the miners. Only recently I received a letter from a check-weigh man up in the second pool, I think in the Monongahela River, asking me what I thought of a firm that would have a sliding link on their weigh scales?

Q. A sliding link—what is that?—A. All he asked me was what I have stated, but I presume it is a link by which you can regulate the distance from the weighing point to the end, slipping the link backwards or forwards just as you wish, so as to cheat in the weight. Our miners almost universally complain of being cheated in the amount of coal that they take out. That is another cause of great aggravation and disturbance. In some mines, they dig and get pay for the "run of the bank"—that is, slack and lump and nut coal all go in together at so much a ton. In other mines the miners are paid for simply the lump coal; and all the rest is deducted. The men have to dig the other kinds for nothing, getting so much a bushel for the lump coal only—coal that is not large enough to go through the screen. The size of the screen is regulated by law in Pennsylvania, but as you proceed in this investigation we will produce witnesses who will prove that the screens are often half an inch larger than the size the law prescribes. The screen is made of long bars of iron, and the coal runs down, over, and between them.

Q. And is the miner allowed only for that coal which is too large to pass through?—A. Yes, sir, the miner is allowed for that; the rest he loses; and in many instances the screens, as I have said, do not conform to the law, but are larger than the prescribed size. In such cases they let coal through that does not go into the weight below, and the miner loses that. It goes by default utterly, and there is a great deal of slack waste.

Q. I take it from what you say, then, that the miners are paid for the amount of coal which they dig?—A. Yes.

Hours of Labor in the New England Textile Industry in the Decade of the 'Eighties

Hours of Labor in New England Factories

12.[1] Q. What are the hours of labor in Massachusetts?—A. The hours of labor in Massachusetts in the mills are ten per day, or sixty

[1] *Report of the Committee of the Senate upon the Relations between Labor and Capital* (1885), pp. 649–651. Testimony of Robert Howard, Fall River, one time (1881) member of the Massachusetts Legislature.

per week. Massachusetts has been the pioneer State in the movement, and it looks as if we were going to be left alone, for none of the other New England States have followed our lead. We are still the only ten-hour State.

Q. What are the hours of labor in the other States? Is not ten hours a day the regular period of labor?—A. No, sir.

Q. What are the hours of labor?—A. In Lewiston, Me., they work from sixty-six to seventy-two or eighty hours a week; in Biddeford, Me., they work sixty-six hours a week, and over; in Rhode Island in some of the mills they work sixty-three hours, and in some sixty-six hours a week. In some of the villages they go up as high as seventy-two hours a week. In Vermont they work in about the same ratio. In Connecticut it is as bad or worse, and in New Hampshire they generally work sixty-six hours, and in some places they go up as high as seventy-two hours a week.

Q. Do you know at what places they work those hours?—A. In Manchester they work sixty-six hours.

Q. But you say that in some places in New Hampshire they work seventy-two hours a week; where are those places?—A. I have been told that they do work as long as that in some of the villages in New Hampshire. I have never traveled much in those places, but I was in Manchester about six weeks ago, and I was astonished at seeing the people coming home from their work. They were coming home at an hour so late that I thought they must have been at supper; we would have been done an hour earlier.

Q. What are the hours of labor in the other States, so far as you know them?—A. They range between sixty-four and seventy-two per week in the surrounding New England States.

Q. Do you know anything about the hours of labor in New York, or in the other States?—A. The Harmony Mills, at Cohoes, they work about sixty-three and one-half hours a week. I know they had a strike in Cohoes in those mills, and got their noon hour extended from forty minutes to fifty minutes. Last year I was down to Maine before a legislative committee laboring for a ten-hour law. We worked up the men of Lewiston and Biddeford to that pitch, and there was a manufacturer examined from a place called Lisbon, in Maine. They asked him what number of hours his help worked a week, and he said that they worked all the way from sixty-eight to seventy and seventy-two hours a week; "indeed" said he, "I let them work as long as they have a mind to," and he went on to say that he would let them work the whole twenty-four if they wanted to do it. Now that state of things should not be allowed.

Q. But you do not understand that up there they do work anybody the whole twenty-four hours, I suppose?—A. Well, no; but I could see that that man was entirely agreeable to it, and the operatives are not always free in these matters. Their bread and butter is at

stake, and where that is the case the men often seem to choose a thing when they do not mean it at all.

Q. To what number of hours per day would you have the hours of labor reduced?—A. I would desire to see the whole of the New England States come down to the same number of hours per day that Massachusetts has now, because it is disadvantageous to Massachusetts to stand alone in that respect; it compels her to drive the machinery at such an extraordinary speed in order to compete with the mills in other places that it is very exhausting to the operatives. They pay as much wages in Massachusetts as they pay in the States where the hours are longer, and they look upon that as a great injustice, and all fair-minded people must admit that it is an injustice that the manufacturers of Massachusetts should be compelled by law to work their operatives only sixty hours a week, while the operatives in factories in the adjoining States are allowed to work as long as they see fit, and, in prosperous times, do work as long as they see fit.

Q. Do you think that, as a matter of fact, more work is done in the longer time than in the ten hours?—A. No; our people of Massachusetts are giving a bigger production.

Q. If so, then why are the manufacturers of Massachusetts placed at a disadvantage in that respect?—A. Because whenever there is a brisk demand the men in the neighboring States are not contented to work 66 or 70 hours a day, but they will work perhaps all night, and they get extra help sometimes, too.

Q. Could not extra help be worked in Massachusetts and could not the difficulty be met in that way?—A. I question very much whether the insurance companies would agree to that.

Labor Conditions in the 'Eighties

Wages of Tailoresses

13.[1] Among some of the tailoresses in the city I have made a personal investigation. They make a regular heavy pantaloon, working pants, for seven cents a pair. They are capable of making ten pairs per day of twelve hours. Boys' pantaloons they make for five to six cents per pair, making fourteen to sixteen pairs per day of twelve hours. They work mostly seven full days in the week; sometimes they will stop on Sunday afternoon, but all work on Sunday, and their average weekly wages is about $3.81, providing no time is lost.

They are compelled to provide their own cotton out of this, and their own needles and thimbles, and other small things that are necessary in the work. Overalls and jumpers (a kind of calico jacket used by laborers in warm weather sometimes, to prevent the dirt getting to the shirt or underclothing) they make for thirty to thirty-five cents per dozen. They generally work in "teams" of two, and they make

[1] *Report of the Committee of the Senate upon the Relations between Labor and Capital* (1885), pp. 284–287. Testimony of Samuel Gompers, August 16, 1883.

about three dozen per day, or in a working day of thirteen to fifteen hours they earn from forty-five to fifty-two and a half cents each. They work generally in the shop, but usually finish some work at home on Sunday.

Tobacco Strippers' Work and Wages

In the manufacture of cigars in shops there is a branch termed "stripping." I am not sure as to these statistics that I am going to give you, but I believe them to be correct. Nine-tenths of these strippers, or about that proportion, are females. Their average hours of labor are ten per day. Their wages range between three and seven dollars a week when at work. About one-half of these girls are employed at the former wage, two-thirds at $5 a week, and the remaining third at a higher wage.

They lose days' and weeks' work frequently, or have lost them in the past more than at present, and in very rare instances are they paid for loss of time, even when it is caused by national or other holidays. In the shops, more especially the larger ones, they are prohibited from holding any conversation under pain of fine or dismissal. Even if they were disposed to converse they could not. The very positions in which they work, or are placed to work (which are not necessary to the work), in long rows in which each faces the back of the girl in front of her precludes them from holding conversation. They suffer in every way the disciplinary measures of imprisonment at hard labor. They cannot hold conversation. One sits with her face to the back of the other, and that is the rule in almost all the factories. Where there are only a few of them of course it makes very little difference. It is believed that this plan of placing them gets more work out of them.

Shop Girls

In this city we have a number of establishments, retail stores generally, large ones, which employ a number of small girls usually known as cash-girls. They labor ten hours daily, on Saturday about sixteen, except at holiday times, such as Christmas and New Year's, when they have to work about fourteen hours a day. The earnings of these girls amount to from two to three dollars a week. The girls range in age generally from about ten or eleven to thirteen or fourteen.

Q. What is their duty?—A. To carry cash from the customer to the cashier.

Q. Or to receive it?—A. They sit in rows generally, and when a sales-lady wishes to make known that a sale is made, she does it by calling out "Cash!"—she does not call for a girl, she calls "cash," that being more important than the girl. The girl is called in that way and must go just as fast as she can. From sitting quietly—because they are compelled to sit quietly, without conversation—she must start up from her seat immediately, or from the place where they are kept standing, having no seats. I see that in Wanamaker's store in Philadelphia he

provides seats for his cash-boys (he has no cash-girls), but in many instances these places have no seats for their cash-girls. Some months ago while investigating this condition of affairs I saw the subject-matter about that time made public through one of the New York papers, and it spoke of the endurance of these girls, or, rather, how puny these poor children looked. In one of our largest establishments the children all dropped off after awhile. They could not stand it. It is such a strain to be almost motionless, and then to make a sudden start.

Q. That, you understand, gives the system a nervous shock?—A. Yes, sir.

Q. And you seem to think that that sudden spring is more apt to be a source of injury to the system than the work itself?—A. Probably more than the work itself, although I think it is decidedly too exacting to have children work in stores ten hours a day, even if those were the longest hours; but they are not.

Q. What ages do you say they are?—A. Ten to thirteen or fourteen. When they become that age, fourteen, or sometimes older, they try to obtain situations in other places as sales-ladies.

Q. Do you understand that this work, of which you have been speaking, breaks down their health?—A. Yes, sir.

Q. Then how happens it that they change from that to this other employment?—A. It is not so exacting upon their systems to be a sales-lady, more especially within the last few years, through the agitation of many of the ladies who go shopping and who have taken up the matter and urged that the sales-ladies ought to be provided with seats when not actually waiting on customers.

District Messenger Boys

We have an institution in this city (I suppose it is a mere branch of the large institution throughout the country generally) known as the District Messenger Company. They employ boys. They advertise generally for boys between the ages of fourteen and sixteen. The boys, though, are very frequently and more frequently below the age of fourteen than above it. Their work is taking messages and carrying small parcels from one place to another. Their hours of work are ten; at least they are supposed to be ten per day. The companies, or some of them, have their boys to work overtime and they pay them first $4 a week, I believe, and for overtime six or seven cents an hour. If any of these boys in carrying a message or a parcel is delayed or is a little beyond the tariff time he is fined, not in money but, in time, and if he should be ten minutes beyond the time he must work one hour over-work to make up that fine. I speak more especially of the boys employed by the American District Telegraph Companies. The other companies are by no means charitable institutions, but they are not so exacting. They have not yet attained the first stage of old Scrooge in Dickens's story.

Q. You think those boys are worse off than the telegraph boys of the Western Union?—A. Do you mean the operators by the word "boys"?

Q. No; I have reference to those who deliver messages.—A. There is some kind of an agreement or understanding between the District Telegraph Company and the Western Union Company. What the agreement is I do not know, except that within a very short time, within a year, I believe, the headquarters of the American District Telegraph Company have been removed to the Western Union building, and their boys deliver the telegraph company's messages. It is one concern so far as the telegraph service of the Western Union is concerned.

Q. Is this the only class of messenger or errand boys about the city? —A. No; I have mentioned that there are others, for instance, the Mutual District messenger boys.

Q. Is the service rendered substantially the same?—A. Yes; but while they have a system of tariff and fines, they are not quite so exacting as the American District Telegraph Company. The boys when once entered upon the "force" as it is called (they are drilled with "sergeants," &c), are compelled to be provided with a suit of clothes to be obtained from the company. Having seen these clothes and having some acquaintance with tailors and cap makers, I am informed and believe that these suits could be purchased in any store made to order for one-half the price charged by the company to these boys.

Q. Do you mean to be understood that the companies make money on these uniforms?—A. I mean to be understood that they use this means to defraud the boys out of certain moneys; that they overcharge them, and use the employment as a means to force these boys to purchase a suit of clothes from them, made by somebody with whom they have a contract undoubtedly at a much less price.

Newsboys and Bootblacks

Q. Now, about the newsboys and the other little fellows that we see around the streets, the bootblacks. Those little waifs seem to be pretty busy doing something all the time. What pay do they get out of their labors—how do they live?—A. Well, the newsboys earn very small sums. I do not believe more than one-half of them live at home with their parents. The others, out of the papers they sell or earn, try to purchase a ticket for some variety show, and buy cigarettes, of course, and keep just sufficient to get a meal in a five-cent restaurant and to pay their lodging in a newsboys' lodging-house, which costs about half a dollar a week.

Q. What chance is there of their attending school?—A. Without answering that question I would like to make a statement that I read in one of the papers (and the paper said that the superintendent of the Newsboys' Home acknowledged it to be true) that the newsboys

were required to pay for one week's lodging in advance; that one boy was taken sick while in the lodging-house, and sent to the hospital after the second night of the week for which he had paid, and when he came out of the hospital he thought that he had five nights good yet to sleep in the lodging-house, but when he came there he was informed that he had forfeited that money by not sleeping in the lodging-house during the week.

Q. Is this newsboys' lodging-house a private institution?—A. I think it is.

Q. Then the boy has no special right there only as he pays for it, and it would not be kept up unless it was a source of money-making to the owner, would it?—A. I cannot say as to that.

Q. Are the newsboys employed by the newspapers, or do they just get so much for every paper they sell?—A. They get so much for every paper they sell, and sometimes a man can buy two-cent papers for a penny. Some will offer you two papers for a cent.

Q. When they have a supply left which they do not sell what becomes of it?—A. It is their own loss.

By Mr. George:

Q. They buy the papers themselves and make what they can?—A. Yes, sir; and it is quite a sight to see some of the boys running after the wagons that contain the papers, the evening papers more especially; to see one hundred or two hundred of them, and as one drops off that has been served with his papers another one takes his place, the others coming up continually and keeping up the crowd. If the poor boys were on the point of starvation and their only hope of life was in that wagon I do not believe they could run much faster or risk their lives much more than they do sometimes.

Q. How about the bootblacks?—A. How the bootblacks do I cannot say, any more than their position in life is very hard.

Q. Does the newsboy get a chance for school at all?—A. I do not see where that comes in, except that possibly one here and there may have an opportunity of going to a night school, and that, I think, is not generally taken advantage of by them. The boy fails to see the importance of an education himself, and there are very few who are willing to lend a hand to guide them.

Wages and Hours of Drivers of Horse Cars in New York

Grievances of Car-Drivers in New York

14.[1] The car-drivers of the city of New York are working from fourteen to sixteen hours a day in all weathers, and receive $1.75 a day.

Q. Now, why is not that enough?—A. Because it will not purchase the commonest necessaries of life.

Q. You understand, of course, that my question is designed to draw

[1] *Report of the Committee of the Senate upon the Relations between Labor and Capital* (1885), pp. 282–283. Testimony of Samuel Gompers, August 16, 1883.

you out fully in regard to that class of workmen, their condition, &c. I understand your assertion to be that it is not enough; it does not seem to me, either, that it is enough; but I want to know from you what chance a man has to live on $1.75 a day?—A. He has this chance: his meals are served to him by his wife or friend or child, as the case may be, in a kettle, while he is driving his team, and at the end of the route he may possibly have two or three minutes to swallow his food. It is nothing more than swallowing it, and when he comes home he is probably too tired or perhaps too hungry to eat.

Q. There is no cessation in his work during the day of any consequence, then?—A. If there is that which is termed relays or switches he has still the same number of hours to work.

Q. Do you mean that that is deducted from his fourteen or sixteen hours?—A. Yes, sir.

Q. Then, if the relays amounted to an hour, he would be absent from his home seventeen hours?—A. Yes, sir.

Q. And if two hours, eighteen?—A. Yes, sir. And in the matter of these relays, in some instances men who do not and cannot live, on account of the meagerness of their wages, on the route of the railroad, are compelled to live at some distance, and when they have these relays or switches it takes them sometimes twenty or thirty minutes to reach their homes, and to return again takes another half or three-quarters of an hour.

Q. Then, do I understand you that these relays and the time occupied morning and evening going to and returning from their work are to be added to the fourteen or sixteen hours of actual service required?—A. The actual service is from fourteen to fifteen hours. Then there is the looking after their horses and cleaning the car besides.

Q. From the time that a car-driver leaves home in the morning until he returns for the night how much of the twenty-four hours will ordinarily be consumed?—A. I cannot tell you exactly as to how long a time they have at home, for the reason that it depends to some extent upon how far they live from the route of travel.

Q. State it approximately as near as you can.—A. Well, I do not believe that they have more than seven and a half hours out of the twenty-four.

By Mr. CALL:

Q. At what hour in the morning do they commence ordinarily, and what time do they quit?—A. Several of the street railroads of this city run all day and night; and on those, of course, the men commence at various hours. During the day the traffic on some routes is not so much as on others, and then they will be relayed; and although they may go on to work at 5 o'clock in the morning, they probably would not get off before 11 or 12 o'clock at night, or probably later still. I would not say later still positively, but I think in some instances later.

By Mr. PUGH:

Q. Have they ever been paid higher wages?—A. Yes, sir. About two years ago they were on a strike to obtain, I think, $2 a day, but were starved into submission.

Q. What do they get now?—A. One dollar and seventy-five cents.

By Mr. GEORGE:

Q. Does the conductor get the same wages, or more?—A. I think he gets 25 cents more, by reason of his position of trust.

By the CHAIRMAN:

Q. Have you any knowledge with regard to those who operate the elevated railways?—A. The men who work at ticket collecting or at the boxes where the tickets are deposited receive $1.25 a day, I think. I would rather wait until I can give you information definitely. I think I can do so now, but I prefer to wait.

By Mr. GEORGE:

Q. Are the car-drivers allowed to have seats?—A. They are not. They have to stand all the time.

By Mr. CALL:

Q. How many hours do they stand?—A. Fourteen or fifteen. Q. Do you mean fourteen hours' standing without intermission?—A. Very little intermission. They sometimes rest back against the door of the car for a while. They also, in some instances, have to act as conductors; that is, give change, count the passengers, and register the number of passengers on an indicator. And then they are sometimes held responsible when somebody is run over on account, perhaps, of their having to perform two men's work. The greed of the horse-railroad companies has been such that they have introduced on several lines what is known as the bobtailed car, and have dispensed with the services of a conductor.

By the CHAIRMAN:

Q. Don't you think that is because they cannot afford to pay any more?—A. I hardly believe that. Judging from the traffic, they are capable of paying it, and judging from what is currently reported as their dividends, they are more than capable of paying it. I must acknowledge, though, that so far as their dividends are concerned, I am personally uninformed. I take merely current rumor and the appearance of the traffic, the number of passengers I see on the cars.

Results of Labor Organization, 1883

15.[1] Strikes ought to be, and in well-organized trades unions they are, the last means which workingmen resort to to protect themselves

[1] *Report of the Committee of the Senate upon the Relations Between Labor and Capital* (1885), pp. 367–368. Testimony of Samuel Gompers, August, 1883.

against the almost never satisfied greed of the employers. Besides this, the strike is, in many instances, the only remedy within our reach as long as legislation is entirely indifferent to the interests of labor. The bureau of statistics of Ohio in 1876 reports eleven strikes in that State in that year, strikes of a general character. Two of those strikes were gained by the operatives (coal miners); two were lost; five were compromised and as to the two remaining, the result was unknown. Two won and five compromised make seven out of eleven that were either won by the strikers or compromised. This is the report for the year closing January, 1878, including the year 1877, when we had not yet fully emerged from the panic. A few years ago a labor society of England offered a prize for the best essay on labor strikes. The prize was awarded to a member of Parliament, Mr. McDonnell, a representative of the coal-miners of England, and in that essay (of which I have tried to obtain a copy lately, but have failed) he reports that in the ten years previous to that time there were about ninety-seven strikes of a general character, not mere local or circumscribed strikes, but important ones, of which seventy were gained, twenty were lost, and seven were either compromised or the result was unknown. The results of organization in my own trade, cigar-making, are instructive. From the year 1873 to 1878 the cigar-makers of this country were reduced in wages systematically *every spring and every fall.* The reductions in wages were sometimes large and sometimes not quite so large, but a reduction was the order of the day at those periods. At that time the cigar-makers' organization was in a very weak and puerile condition. Further the manufacturers of cigars throughout that period managed to introduce a system of truck or "pluck-me" payments, by which the workingmen were paid in kind, cigars, and were required to go out and sell them to any grogshop or other place of any description where they could sell them; or they would receive store orders, or, in the case of single men, they would be required to board at certain hotels or boarding houses. In the city of Elmira, in this State, a manufacturer paid his workingmen $6 per thousand if they were taking their wages out in truck or kind, while he paid only $5 a thousand to those single men who were in boarding houses, and but $4 a thousand to those cigar-makers who wanted cash, legal tender. In one instance a man who expected at the end of the week to receive a dollar or two besides his board, was informed by his employer that he could not give it to him because he had just made an investment and he was sorry for it. The investment was that he had just bought a horse, but "to tell you the truth," said he, "I had to take it in trade. That being so, of course, it is not a very high price that I want for it, and you can have that horse for the balance of your wages," which was a little over $3. The cigar-maker believing that he might possibly be able to sell the animal, and finding it impossible to obtain any money, took the horse. He went around with it all that Saturday evening, and not having any money, he could

not purchase the horse a meal, and if he had done so subsequent events showed that the horse might not have been in a condition to eat it, for about 11 o'clock that night it died and he was required to furnish a wagon and to see that the carcass was removed and taken to the proper place of interment, or he would have been fined by the city authorities. The consequence to him was a night's effort to get rid of the horse and the payment of about $4 to have it carted away after it had died. This was told me by the man to whom it occurred. Last year the same man was the candidate of the workingmen for member of assembly.

The Cigar-makers' Union

What I wish to show is the condition of the cigar-makers at that period when there was no organization. When our organizations commenced to emerge and reorganize throughout the country, the first year there were seventeen strikes in our trade, of which twelve or thirteen were successful. The rest were either lost or compromised. In the year following we had forty-six strikes, of which thirty-seven, I think, were successful, three lost, and six compromised. In these last two years, since which we have held no convention (we will hold one next year and we will hear the result), I am convinced that we have had over one hundred and sixty or one hundred and seventy strikes, and the strikes have been successful except in, perhaps, twenty instances, where they may have been lost or compromised. The truck system of which I spoke exists no longer in our trade. We have adopted a course of action which our experience has taught us, and that is, in certain periods of the year, when it is generally dull, not to strike for an advance of wages. Formerly, before the organization, men would probably strike for an advance of wages in the dull season, and be content that they were not reduced in the busy season. Our experience has taught us to adopt a different mode of action.

Q. You strike now when business is active?—A. Yes, sir; and then, when we obtain an increase of wages when times are fair, our object is to endeavor to obtain fair wages during the dull season also, and, while we have made provision not to strike for an increase of wages during those periods, we are always in a position to strike against a reduction of wages or the introduction of the truck system, or other obnoxious rules. We have found that, for the purpose of accomplishing this object, it is entirely valueless to organize a union during a strike, and that it is little better than valueless to organize just immediately before a strike. We have found that if we are desirous of gaining anything in a strike, we must prepare in peace for the turbulent time which may come. And the Cigar-makers' International Union, of which I now speak especially, is an organization that has in its treasury between $130,000 and $150,000 ready to be concentrated within five days at any time at any given point. I hold in my hand a copy of the constitution of that organization. Of course I am not

desirous of making a propaganda for it, but to illustrate what I have been saying I will read from it this provision: "Any union being directed by the executive board to forward money to another local union, and failing to comply within five days from date of said notice, shall be suspended." That is, in the event of a strike at a given point, the international president of the organization is directed to direct or request the nearest union to immediately send on its whole treasury if that is necessary, and the unions throughout the entire country and Canada to forward their entire treasury if necessary, to be placed at the disposal of the organization that is in trouble.

Remedial Suggestions

16.[1] Well, we propose—

1. That trades unions shall be incorporated. At present there are a great many of the States that do not protect our funds. It is simply a breach of trust to use our funds improperly and we have lost considerable money in that way. There was one case where the president of an organization ran away with $327 and it cost us over $1,000 to bring him to justice, and if it had not been in the State of Illinois, we probably could not have done anything with him. In the State of Michigan we have no protection for our funds. Being, as we are, a benevolent organization, we desire some protection from the government, that is, a legal recognition and protection for the property we hold. The money we hold to-day is invested in savings banks, in probably 145 different banks, and there may be an opportunity to invest it in some safer institutions or in something else; but at present we have no right to invest our money except in Government bonds or in savings banks, and we claim the same right as the banks and other corporations have to be incorporated. The banks, as I understand, are incorporated by the States, but we desire a general act passed by Congress which will cover the whole ground and save us from going from State to State. Therefore, we request that the Committee on Education and Labor of the Senate report, before the 15th day of December next, for the favorable consideration of the Senate, a bill for the incorporation of the trades unions, giving them legal rights and allowing them to have headquarters wherever they deem most fit or practicable. This, we hold, will give our organization more stability, and in that manner we shall be able to avoid strikes by perhaps settling with our employers when otherwise we should be unable to do so, because when our employers know that we are to be legally recognized that will exercise such moral force upon them that they cannot avoid recognizing us themselves.

2. The next demand we make, one which we think will benefit labor, is the enforcement of the eight-hour law and its extension to the operation of all patents granted by the Government. By that I mean

[1] *Report of the Committee of the Senate upon the Relations between Labor and Capital* (1885), pp. 461–462. Testimony of Adolph Strasser, August 21, 1883.

that if the Government grants a patent to anybody for any kind of invention, it shall be with the stipulation that the labor performed under that patent shall not be more than eight hours a day.

3. Our third demand is this: We claim that it is necessary to obtain information in regard to such questions as those which this committee is now investigating, and to that end we believe there is a necessity for a national bureau of labor statistics. That was attempted by the organized workingmen of the United States in 1866, and we hold that it is time to provide for it by law. To-day there are very few trades in the United States which have the means of getting such information in regard to their own members as I am able to give in regard to the members of our organization as to wages, cost of living, and so on. We have regular blanks which we issue monthly and annually, in which we make all these inquiries, and in that manner we have collected, to a certain extent, our own statistics; but there is a large number of industries in the country which are not organized, and besides we have no means of getting information in regard to the profits of the employers, and we hold that such a national bureau of labor statistics would give our legislators a great deal of information which will be very valuable to them as legislators, and we hold further that it would be a benefit, not only to labor, but, also, even greater benefit to capital, to have all this information compiled annually and distributed generally.

4. Our fourth demand is what I have already stated, that the Senate Committee on Finance shall report an amendment to the revenue laws, prohibiting the granting of licenses after May 4, 1884, to prisons, penitentiaries, and other such places for the manufacture of cigars. This demand is made, of course, simply in the interest of my own trade.

These are all the demands which I think it necessary to make now, and we believe that if these are granted, they will tend to relieve labor, to prevent strikes, and to accomplish the results formulated in the resolution of the Senate under which you are acting.

In Defense of Laissez-Faire—Testimony of Jay Gould on Labor

The Strike of the Telegraphers

17.[1] Q. In connection with the recent strike of telegraphers, have you personally had occasion to examine the claims of the operators and to satisfy yourself whether their demand for higher compensation

[1] *Report of the Committee of the Senate upon the Relations between Labor and Capital* (1885), pp. 1083–1085. Testimony of Jay Gould, September 5, 1883.

Editor's Note.—Jay Gould (1836–1892) became interested in railroads shortly before the Civil War, and soon became the leading railroad magnate of his day. He was also interested in telegraphy and succeeded in consolidating the telegraph lines in 1881 under the Western Union Telegraph Company. As illustrating the attitude of a large-scale employer of labor during this period the following excerpt from his testimony before the Senate committee is interesting.

and shorter hours was just?—A. I have a general knowledge of the relations between the telegraph company and its employes, and I think there is no corporation of that magnitude in the country that pays so much attention to its employes as that company does. I have never been connected with one that did. I think they have a committee whose business it is to examine the claims of the different operators, and they are increasing the pay all the time, as merit or industry warrants it. I know of no other corporation that has that system, which is a good one. I think, further, that the employes of the telegraph company are well paid for their services.

Q. Compared with the employes of railroad corporations or clerks in mercantile business and all that kind of work?—A. Yes, sir.

Q. Do you think they are as highly paid as the men in those other pursuits?—A. Yes, sir. It is a nice, genteel occupation—telegraphing.

Q. You have had considerable practical experience with labor, have you not?—A. Yes, sir; I have been all my life either a laborer or a hirer of labor.

Strikes, Their Causes and Results

Q. What is your observation and opinion in regard to strikes, their causes, and their results?—A. Strikes, of course, come from various causes, but they generally come from a class of dissatisfied men—the poorest part of your labor generally are at the bottom of a strike. Your best men do not care how many hours they work, or anything of that kind; they are looking to get higher up; either to own a business of their own and control it, or to get higher up in the ranks.

Q. But from the necessity of the case only a very small number can expect that.—A. Well, there are a great many who have places in view all the time. Of course there are only so many places to be filled, but there are a great many that are looking after those places. There may be only one place to be filled, but there may be five hundred nice, industrious fellows who are all working for it.

Q. That keeps them quiet?—A. Yes, sir.

Q. And may they not, for that very reason, be willing to put up with hardships and insufficient compensation for the time being?—A. They may.

Q. So the fact that these men were contented, or, at all events, were quiet, might be no reason for believing that the mass of the laborers were receiving fair pay. Now, don't you think, when you come to treat of the labor of the country in that broad way, and to consider that most of the laborers must always necessarily be in the ranks, so to speak—privates—and can never reasonably expect to become officers or to be promoted, do you not think their dissatisfaction may oftentimes be based on the fact that they do not receive compensation enough to keep them from suffering?—A. Is it not true that they get

better pay here than in any other country? That is why they come here, I believe.

Q. I believe so.—A. And is it not true also that capital, if it gets better remuneration in some other country than it gets here, will go there? You cannot transfer your house, but you can transfer your money; and if labor is put up too high here, all the manufacturing will be done abroad, because the capitalists will go where they can get cheaper labor. So that when you sit down and try to get a panacea for a particular evil you run against a great many obstacles that come in the way of putting it in practice, and my observation has been that capital and labor, if let alone, generally come together and mutually regulate their relations to each other. There are some of these people who think they can regulate the whole of mankind, but they generally get wrong ideas into the minds of the public.

Q. Notwithstanding the fact that labor is better paid in this country than elsewhere, capital is also very much better paid in this country, and is likely to be so, at least for the present, and capital, like labor, is coming here from the older countries; and yet we find labor here dissatisfied to a great extent. Is not that so?—A. I think not. I think there is a far greater satisfaction here among the workingmen generally than anywhere else in the world, far greater than among the laboring classes that I have seen abroad. I only speak of what I have seen myself. I have traveled through Ireland, and the north of Ireland, you know, is a great manufacturing region. I saw the condition of labor there, and in Scotland, England, France, Germany, Holland, and Belgium, and I found everywhere among the masses a burning desire to get to America. They said, "We would get better wages there. So-and-so has written to us that we can get better wages there, and if we do not like one thing there we can turn to another. There are broad acres in the West." That is the sentiment that I found generally existing among those people.

Labor Gets Its Fair Share

Q. Of the strikes which you have observed in this country, many, you say, have originated with dissatisfied and complaining working people; dealing with the question in the mass, as you have observed it, do you think that the working element of the country gets as much of the accumulated wealth that it and capital together produce as it ought to get?—A. Yes, sir.

Q. Labor, you think, gets its fair share?—A. Yes, sir. The returns of capital are not high; they are going lower. Manufacturers, for instance, do not expect to make the profits that they made some years ago; they expect to make a less profit, and make it up by larger sales. Now, labor gets the difference; because, after all, it is the great integral part that goes into every manufactured article. The raw

material is comparatively a small element. Take iron; the mountains are full of the ore; it is labor that takes the ore out, that moves it to the furnace, that makes the pigiron, and it is labor that converts that iron into the manufactured product; and when it is finally sold all that accumulated labor in all the different stages of production has to go in, and that plus the raw material, makes up the cost of the article. The balance, the difference between the cost and the selling price, whatever it is, is profit, and that profit does not average in this country to manufacturers as much, I think, as it does abroad. The profit here is less than elsewhere; the cost of the labor is more.

A Quarter-Century of Strikes

18.[1] In this period of twenty-five years there were 36,757 strikes and 1,546 lockouts in the United States, making a total of 38,303 disturbances of this character. As above indicated, disturbances of less than one day's duration are not included in these numbers.

Strikes occurred in 181,407 establishments and lockouts in 18,547 establishments, making a total of 199,954 establishments involved in these disturbances. The total number of persons who went out on strike during the twenty-five years was 6,728,048 and the number of persons locked out was 716,231, making a total of 7,444,279 persons striking and locked out.

Because of the dependence of one occupation upon another the cessation of work by strikers and employees locked out often renders it impossible for fellow-employees in the same establishment to continue work. The number of employees, including strikers, thrown out of work by strikes within this period of twenty-five years was 8,703,824, and the number thrown out of work by lockouts was 825,610, making a total of 9,529,434 persons thrown out of work by these labor disturbances in the establishments involved. In the above figures establishments and employees have been counted each time they were involved in different strikes and lockouts. On the other hand, no attempt has been made to estimate the number of persons thrown out of work in establishments not involved in the disturbances but closely dependent in many ways on the establishment involved, as in furnishing material, etc.

Of the 36,757 strikes from 1881 to 1905, 68.99 per cent were ordered by labor organizations, and 31.01 per cent were begun either by employees who were not members of organizations, or who, if members of organizations, went on strike without the sanction of their organizations. Of the 181,407 establishments involved in strikes, 90.34 per cent were included in strikes ordered by organizations. Strikes ordered by labor organizations included 79.69 per cent of all

[1] *Twenty-First Annual Report of the Commissioner of Labor, 1906, Strikes and Lockouts,* pp. 12–15, Washington, 1907.

strikers and 77.45 per cent of the total persons thrown out of work in establishments involved in strikes.

The average duration of strikes per establishment was 25.4 days and of lockouts 84.6 days. The strike or lockout does not, of course, always result in the closing of the establishment affected, but in strikes 111,343, or 61.38 per cent of all establishments involved, were closed an average of 20.1 days. In lockouts 12,658, or 68.25 per cent of all establishments involved, were closed an average of 40.4 days. The days here referred to are calendar days, including Sundays and holidays.

Employees who struck succeeded more often than they failed; they succeeded in winning all the demands for which the strike was undertaken in 47.94 per cent of the establishments, succeeded partly in 15.28 per cent of the establishments, and failed to win any of their demands in 36.78 per cent of the establishments. On the other hand, employers succeeded more often than they failed when they locked out their employees. Lockouts resulted in favor of employers in 57.20 per cent of the establishments thus involved, succeeded partly in 10.71 per cent of the establishments, and failed in 32.09 per cent of the establishments.

Strikes ordered by labor organizations were wholly successful in 49.48 per cent of the establishments involved, partly successful in 15.87 per cent of the establishments, and failed in 34.65 per cent of the establishments. Strikes not ordered by labor organizations were wholly successful in 33.86 per cent of the establishments involved, partly successful in 9.83 per cent of the establishments, and failed in 56.31 per cent of the establishments.

Of the 8,703,824 employees thrown out of work by strikes, 90.57 per cent were males and 9.43 per cent were females. Of the 825,610 thrown out of work by lockouts, 84.18 per cent were males and 15.82 per cent were females.

As might naturally be expected, more strikes were occasioned by demands for increase of wages than for any other one cause. A total of 11,851 strikes, or 32.24 per cent of all strikes, were for this cause alone. This cause, in combination with other causes, produced 3,117 strikes, making 40.72 per cent of all strikes attributable in whole or in part to demands for increase of wages.

The next most fruitful cause of strikes was disagreement concerning recognition of union and union rules. This cause alone produced 18.84 per cent of all strikes, and both alone and combined with other causes produced 23.35 per cent of all strikes. Objection to reduction of wages alone and combined with other causes produced 11.90 per cent of all strikes. Demands for reduction of hours alone and combined with other causes produced 9.78 per cent of all strikes.

Of the total number of establishments involved in strikes, 57.91 per

cent were involved in strikes caused either in whole or in part by demands for increase of wages.

The most important cause of lockouts was disputes concerning recognition of union and union rules and employers' organization, which cause, alone and combined with various causes, produced nearly one-half of all lockouts and included more than one-half of all establishments involved in lockouts.

The greatest number of strikes that occurred in any one industry

STRIKES, ESTABLISHMENTS INVOLVED, STRIKERS, AND EMPLOYEES THROWN OUT OF WORK, BY YEARS, 1881 TO 1905

Year.	Strikes.	Establishments.		Strikers.		Employees thrown out of work.	
		Number.	Average per strike.	Number.	Average per strike.	Number.	Average per strike.
1881.....	471	2,928	6.2	101,070	215	129,521	275
1882.....	454	2,105	4.6	120,860	266	154,671	341
1883.....	478	2,759	5.8	122,198	256	149,763	313
1884.....	443	2,367	5.3	117,313	265	147,054	332
1885.....	645	2,284	3.5	158,584	246	242,705	376
1886.....	1,432	10,053	7.0	407,152	284	508,044	355
1887.....	1,436	6,589	4.6	272,776	190	379,676	264
1888.....	906	3,506	3.9	103,218	114	147,704	163
1889.....	1,075	3,786	3.5	205,068	191	249,559	232
1890.....	1,833	9,424	5.1	285,900	156	351,944	192
1891.....	1,717	8,116	4.7	245,042	143	298,939	174
1892.....	1,298	5,540	4.3	163,499	126	206,671	159
1893.....	1,305	4,555	3.5	195,008	149	265,914	204
1894.....	1,349	8,196	6.1	505,049	374	660,425	490
1895.....	1,215	6,973	5.7	285,742	235	392,403	323
1896.....	1,026	5,462	5.3	183,813	179	241,170	235
1897.....	1,078	8,492	7.9	332,570	309	408,391	379
1898.....	1,056	3,089	3.6	182,067	172	249,002*	236*
1899.....	1,797	11,317	6.3	308,267	172	417,072	232
1900.....	1,779	9,248	5.2	399,656	225	505,066	284
1901.....	2,924	10,908	3.7	396,280	136	543,386	186
1902.....	3,162	14,248	4.5	553,143	175	659,792	209
1903.....	3,494	20,248	5.8	531,682	152	656,055	188
1904.....	2,307	10,202	4.4	375,754	163	517,211	224
1905.....	2,077	8,292	4.0	176,337	85	221,686	107
Total.	36,757	181,407	4.9	6,728,048	183	8,703,824*	237*

* Not including 2 strikes involving 33 establishments not reported.

was in the building trades, which embraced 26.02 per cent of all strikes and 38.53 per cent of all establishments involved in strikes. In the coal and coke industry were 9.08 per cent of all strikes and 9.39 per cent of all establishments involved in strikes. Many strikes were found in the following industries: Boots and shoes; clothing, men's; foundry and machine shop; and tobacco (cigars and cigarettes). The coal and coke industry included more strikers than any other industry, also more employees thrown out of work. The second industry in order in this respect was the building trades. In the building trades were 16.49 per cent of all lockouts, more than one-half of all the establishments involved, and about 30 per cent of all the employees locked out and of persons thrown out of work.

In 1903 there were 3,494 strikes, a greater number than in any other year. The number was 471 in 1881, the first year of the period, while in 1905 the number was 2,077. More strikers went out in the year 1902 than in any other year, and more employees were thrown out of work in 1894 than in any other year.

Lockouts were more frequent and included more employees in 1903 than in any other year of the period.

In the North Atlantic division were more than one-half of all strikes, establishments involved, strikers, and employees thrown out of work. In the North Central division were almost one-third of the totals in these items named.

The percentages of the total number of strikes in the principal industrial States were as follows: New York, 27.75 per cent; Pennsylvania, 11.31 per cent; Illinois, 9.86 per cent; Massachusetts, 7.55 per cent, and Ohio, 6.99 per cent. Of the strikers, 25.12 per cent of the total number were in Pennsylvania, 21.15 per cent in New York, 13.31 per cent in Illinois, 6.36 per cent in Ohio, and 5.25 per cent in Massachusetts. These States named were also the States in which the greatest number of lockouts occurred.

Development of Compensation Legislation

History of Compensation Legislation *

19.[1] Compensation legislation in the United States is of recent origin. The first permanent State laws were enacted by Washington and Kansas on March 14, 1911. The first law to become effective, however, was the one enacted by Wisconsin May 3, 1911, which took effect immediately upon its passage. Since then compensation legislation has progressed rapidly, 37 States and 3 Territories having placed such laws upon their statute books,† while the Federal act has been amended to include all civil employees.

* For a more complete history of compensation legislation, see *Bulletin of United States Bureau of Labor Statistics,* no. 203, pp. 45–50.

[1] Hookstadt, Carl, "Comparison of Workmen's Compensation Laws of the United States up to December 31, 1917," *Bulletin of the United States Bureau of Labor Statistics, No. 240,* pp. 9–13, Washington, 1918.

Prior to 1911, however, several States had enacted workmen's compensation laws which were later declared unconstitutional by the courts; and in addition voluntary insurance or benefit schemes had been provided for in a number of States but these could hardly be

† The following States, etc., have enacted compensation laws:

State.	Approved.	Effective.
Washington	Mar. 14, 1911	Oct. 1, 1911
Kansas	do.	Jan. 1, 1912
Nevada	Mar. 24, 1911	July 1, 1911
New Jersey	Apr. 4, 1911	July 4, 1911
California	Apr. 8, 1911	Sept. 1, 1911
New Hampshire	Apr. 15, 1911	Jan. 1, 1912
Wisconsin	May 3, 1911	May 3, 1911
Illinois	June 10, 1911	May 1, 1912
Ohio	June 15, 1911	Jan. 1, 1912
Massachusetts	July 28, 1911	July 1, 1912
Michigan	Mar. 20, 1912	Sept. 1, 1912
Rhode Island	Apr. 29, 1912	Oct. 1, 1912
Arizona	June 8, 1912	Sept. 1, 1912
West Virginia	Feb. 22, 1913	Oct. 1, 1913
Oregon	Feb. 25, 1913	July 1, 1914
Texas	Apr. 16, 1913	Sept. 1, 1913
Iowa	Apr. 18, 1913	July 1, 1914
Nebraska	Apr. 21. 1913	July 17, 1913
Minnesota	Apr. 24, 1913	Oct. 1, 1913
Connecticut	May 29, 1913	Jan. 1, 1914
New York	Dec. 15, 1913	July 1, 1914
Maryland	Apr. 16, 1914	Nov. 1, 1914
Louisiana	June 18, 1914	Jan. 1, 1915
Wyoming	Feb. 27, 1915	Apr. 1, 1915
Indiana	Mar. 8, 1915	Sept. 1, 1915
Montana	do.	July 1, 1915
Oklahoma	Mar. 22, 1915	Sept. 1, 1915
Vermont	Apr. 1, 1915	July 1, 1915
Maine	do.	Jan. 1, 1916
Colorado	Apr. 10, 1915	Aug. 1, 1915
Hawaii	Apr. 28, 1915	July 1, 1915
Alaska	Apr. 29, 1915	July 28, 1915
Pennsylvania	June 2, 1915	Jan. 1, 1916
Kentucky	Mar. 23, 1916	Aug. 1, 1916
Porto Rico	Apr. 13, 1916	July 1, 1916
South Dakota	Mar. 10, 1917	June 1, 1917
New Mexico	Mar. 13, 1917	June 8, 1917
Utah	Mar. 15, 1917	July 1, 1917
Idaho	Mar. 16, 1917	Jan. 1, 1918
Delaware	Apr. 2, 1917	do.
United States	May 30, 1908	Aug. 1, 1908
New act	Sept. 7, 1916	Sept. 7, 1916

designated compensation laws as now understood. The following is a brief summary of these early acts:

The first legislation in the United States providing for stated benefits payable without suit or proof of negligence was the coöperative insurance law of Maryland. This act was of restricted application, included only mining, quarrying, railways, and municipal construction work, and was to be administered by the State insurance commission. The law was declared unconstitutional, however, as depriving parties of the right of trial by jury and conferring on an executive judicial or at least quasi-judicial functions.

The next law within the territorial jurisdiction of the United States was an enactment by the United States Philippine Commission in 1905, authorizing the continuance of wages for a period during disability, but not exceeding 90 days, in case of injury received by the employees of the Insular Government in the line of duty.

The Federal Government enacted a limited compensation law in 1908, but applicable only to certain hazardous employments.

In 1909 Montana enacted a law (effective Oct. 1, 1910) providing for the maintenance of a State coöperative fund for miners and laborers in and about the coal mines of the State. Contribution to the fund was compulsory, employers to pay on the basis of the tonnage of coal mined, and employees on the basis of their monthly gross earnings. State officials were to administer the fund, and payments for death and disability were provided for. While compulsory, the act was not exclusive as against injured workmen, who were permitted to sue under the employers' liability law, though bringing suit forfeited the benefits under this act. This double obligation imposed upon the employer by the act was held by the supreme court of the State to invalidate it, though in its essential features it was held to be a valid exercise of the law-making power.

The next law of this class was enacted by Maryland in 1910 establishing coöperative insurance funds for coal and clay miners of Alleghany and Garrett counties. This act was repealed by the compensation act of 1914.

It will be observed that the foregoing legislation, antedating what may be called the commission period, was of limited application, either as to the locality or as to the classes of employees affected. Also that there appears to have been but little regard as to whether the benefits provided were at all adequate to the needs of the workmen. The laws subsequently enacted may be said to be of general application and have generally been based on the investigations of commissions.

The first of the laws of this class was the elective compensation law of New York, 1910, followed in the same session by a compulsory law for hazardous employments. The latter law was declared unconstitutional after a very brief term of existence, but after an amendment to the constitution a new compulsory law was enacted in 1913.

The real compensation period began in 1911 when 10 States enacted such laws. Each year since then additional States have fallen in line until at present, as already noted, 40 States and Territories have enacted compensation legislation.

This rapid growth of compensation legislation, involving, as it has, the almost simultaneous enactment of laws in a number of States, has operated to prevent the adoption of any one form of law as a type, so that although a single fundamental principle underlies the entire group of laws of this class, its expression and application present great diversity of details in the different States. This is true not only of the primary factors of the laws, such as the scope and the compensation benefits, but also of the system of compensation insurance, administration, method of election or rejection, etc.

A comparison of these and other features which may be classed as of principal rank is essential to any fair understanding of the relative effectiveness of the laws—a fact which is recognized by insurance companies in fixing the rates of premium to be charged in writing policies to cover the liabilities prescribed by the laws, and is of no less interest to the employer who is primarily charged with these liabilities, and to the workman for whose benefit the laws were enacted.

The compensation States contain approximately 77 per cent of the persons gainfully employed in the United States and include practically all of the industrial States. There seems to have been no causal connection between the need for compensation laws and the sequence of their enactment. Of the 10 States enacting such laws in 1911, 3 were manufacturing States on the Atlantic coast, 4 were agricultural of semi-industrial States in the Mississippi Valley, and 3 were primarily agricultural or mining States west of the Rocky Mountains. The 12 noncompensation States * remaining include 10 Southern States, North Dakota, and the District of Columbia. Practically all of these are primarily agricultural States, though in most of them manufacturing is of considerable and increasing importance.

Systems Provided For

Compensation laws may be classified as compulsory, elective (optional), or voluntary, depending upon the degree of constraint to which employers are subjected to accept the compensation provisions. Since these terms will be used repeatedly it may be advisable to define them in detail. A compulsory law is one which requires every employer within the scope of the compensation law to accept the act and pay the compensations specified. There is no choice. Usually, but not always, the employee must also accept the provisions of the act. In Arizona, for example, the law is compulsory as applied to the employer, but the employee, after an injury, has the option of accepting compensation or suing for damages.

* Alabama, Arkansas, District of Columbia, Florida, Georgia, Mississippi, Missouri, North Carolina, North Dakota, South Carolina, Tennessee, and Virginia.

An elective act is one in which the employer has the option of either accepting or rejecting the act, but, in case he rejects, the customary common-law defenses are usually abrogated. In other words, the employer is penalized if he does not elect. The employee also has the right to accept or reject the act.

None of the compensation laws covers all employments. Usually agriculture, domestic service, employments casual in nature or not conducted for the purpose of the employer's business, and in some laws nonhazardous employments, are exempted from the provisions of the act. In some States such employments, however, may come under the provisions of the law through the voluntary acceptance of the employer or the joint election of employer and employee in these exempted classes, but the employer loses no rights or defenses if he does not accept. Such action on the part of the employer is called voluntary and to this extent the compensation law is a voluntary one. Thus a law may be either compulsory or elective as to the employments covered, and voluntary as to employments exempted.

Furthermore, the employments referred to above are private employments. An act may be elective as to private but compulsory as to public employments. In fact, one-half of the elective compensation laws are compulsory as to public employees. Classification, however, is based exclusively upon private employments.

Reconstruction Program of the American Federation of Labor

Democracy in Industry

20.[1] Two codes of rules and regulations affect the workers: The law upon the statute books and the rules within industry.

The first determines their relationship as citizens to all other citizens and to property.

The second largely determines the relationship of employer and employee, the terms of employment, the conditions of labor, and the rules and regulations affecting the workers as employees. The first is secured through the application of the methods of democracy in the enactment of legislation, and is based upon the principle that the laws which govern a free people should exist only with their consent.

The second, except where effective trade-unionism exists, is established by the arbitrary or autocratic whim, desire, or opinion of the employer and is based upon the principle that industry and commerce can not be successfully conducted unless the employer exercises the unquestioned right to establish such rules, regulations, and provisions affecting the employees as self-interest prompts.

Both forms of law vitally affect the workers' opportunities in life and determine their standard of living. The rules, regulations, and conditions within industry in many instances affect them more than

[1] *Monthly Labor Review,* vol. viii, no. 3, March, 1919, pp. 63–65.

legislative enactments. It is, therefore, essential that the workers should have a voice in determining the laws within industry and commerce which affect them, equivalent to the voice which they have as citizens in determining the legislative enactments which shall govern them.

It is as inconceivable that the workers as free citizens should remain under autocratically made law within industry and commerce as it is that the nation could remain a democracy while certain individuals or groups exercise autocratic powers.

It is therefore essential that the workers everywhere should insist upon their right to organize into trade-unions, and that effective legislation should be enacted which would make it a criminal offense for any employer to interfere with or hamper the exercise of this right or to interfere with the legitimate activities of trade-unions.

Unemployment

Political economy of the old school, conceived by doctrinaires, was based upon unsound and false doctrines, and has since been used to blindfold, deceive, and defeat the workers' demands for adequate wages, better living and working conditions, and a just share of the fruits of their labor.

We hold strictly to the trade-union philosophy and its developed political economy based upon demonstrated facts.

Unemployment is due to underconsumption. Underconsumption is caused by low or insufficient wages.

Just wages will prevent industrial stagnation and lessen periodical unemployment.

Give the workers just wages and their consuming capacity is correspondingly increased. A man's ability to consume is controlled by the wages received. Just wages will create a market at home which will far surpass any market that may exist elsewhere and will lessen unemployment.

The employment of idle workmen on public work will not permanently remove the cause of unemployment. It is an expedient at best.

There is no basis in fact for the claim that the so-called law of supply and demand is natural in its operations and impossible of control or regulation.

The trade-union movement has maintained standards, wages, hours, and life in periods of industrial depression and idleness. These in themselves are a refutation of the declared immutability of the law of supply and demand.

There is in fact no such condition as an iron law of wages based upon a natural law of supply and demand. Conditions in commerce and industry, methods of production, storing of commodities, regulation of the volume of production, banking systems, the flow and direction of enterprise influenced by combinations and trusts have

effectively destroyed the theory of a natural law of supply and demand as had been formulated by doctrinaire economists.

Wages

There are no means whereby the workers can obtain and maintain fair wages except through trade-union effort. Therefore, economic organization is paramount to all their other activities.

Organization of the workers leads to better wages, fewer working hours, improved working conditions; it develops independence, manhood, and character; it fosters tolerance and real justice and makes for a constantly growing better economic, social, and political life for the burden-bearing masses.

In countries where wages are best, the greatest progress has been made in economic, social and political advancement, in science, art, literature, education, and in the wealth of the people generally. All low wage-paying countries contrasted with America is proof for this statement.

The American standard of life must be maintained and improved. The value of wages is determined by the purchasing power of the dollar. There is no such thing as good wages when the cost of living in decency and comfort equals or exceeds the wages received. There must be no reduction in wages; in many instances wages must be increased.

The workers of the nation demand a living wage for all wage earners, skilled or unskilled—a wage which will enable the worker and his family to live in health and comfort, provide a competence for illness and old age, and afford to all the opportunity of cultivating the best that is within mankind.

Hours of Labor

Reasonable hours of labor promote the economic and social well-being of the toiling masses. Their attainment should be one of labor's principal and essential activities. The shorter workday and a shorter work week make for a constantly growing, higher and better standard of productivity, health, longevity, morals and citizenship.

The right of labor to fix its hours of work must not be abrogated, abridged, or interfered with.

The day's working time should be limited to not more than eight hours, with overtime prohibited, except under the most extraordinary emergencies. The week's working time should be limited to not more than five and one-half days.

Women as Wage Earners

Women should receive the same pay as men for equal work performed. Women workers must not be permitted to perform tasks disproportionate to their physical strength or which tend to impair their potential motherhood and prevent the continuation of a nation of strong, healthy, sturdy, and intelligent men and women.

Child Labor

The children constitute the nation's most valuable asset. The full responsibility of the Government should be recognized by such measures as will protect the health of every child at birth and during its immature years.

It must be one of the chief functions of the nation through effective legislation to put an immediate end to the exploitation of children under 16 years of age.

State legislatures should protect children of immature years by prohibiting their employment, for gain, under 16 years of age and restricting the employment of children of less than 18 years of age to not more than 20 hours within any one week and with not less than 20 hours at school during the same period.

Exploitation of child life for private gain must not be permitted.

Blacklisting on the Railroads

21.[1] J. D. Green, a former conductor on the Illinois Central Railroad, testified that he quit during the strike, and afterwards applied for work to J. B. Strong, trainmaster of the Chicago Great Western; that Strong told him he could not hire him unless he had a clearance, and asked him if he had a clearance, and he said No, but that he could show him a lot of railroad passes showing that he was a railroad man. Strong said, "We hired a man by the name of Ketcham without a clearance and we got hell for it, and had to discharge him when we found out he had been a striker. I don't care if you have had wrecks, or accidents, or have been drunk, or anything else, if you can only bring a clearance from that strike I can hire you. We don't care whether you have been careless or anything of the kind."

He was denied employment also by the Chicago and Alton and several roads to whom he never got a chance to make formal application. They asked if he had a clearance, and he said no.

He went to the Illinois Central after several vain efforts to get work and got a letter, which I have here, written by Mr. J. W. Higgins, superintendent of terminals of the Illinois Central, dated January 16, 1896. After searching for employment for a year and a half he got him to write a letter to Mr. C. L. Nichols, superintendent of the

[1] *56th Cong., 1st Sess., House of Representatives. Report of the Industrial Commission on Transportation, Vol. iv of the Commission's Report,* pp. 507–508, Washington, 1900. Testimony of William J. Strong of Chicago.

Editor's Note.—William J. Strong was a Chicago lawyer who became interested in railroad blacklisting in the fall of 1895, when he was called in as counsel in the case of Fred R. Ketcham against the Chicago and Northwestern Railroad. As a result of this case, Strong took testimony of many former railroad men, and, he testified, "In the month of June, 1896, I filed some 50 cases, containing this charge of blacklisting, against nearly every railroad in the city of Chicago, I believe, with one or two exceptions, some being in the hands of receivers; and I did not bring suit against them, although I charged them with being parties to the conspiracy."

Chicago, Rock Island and Pacific Railway, at Blue Island, Ill., which was as follows: "Mr. J. D. Green, formerly a conductor on this road for eight years, left the service and went with the Lake Street Elevated Railroad about the time it opened, and is now desirous of making a change," covering up the fact that he quit during the strike. "As there are no vacancies in our service, business being reduced, he desires to make application to you. I think you will find Mr. Green a competent trainman."

He took this letter and went to Mr. W. E. Green, trainmaster of the Alton road, whom he knew, having failed to get work from the Rock Island. He got Mr. Green, the trainmaster of the Alton, to write a letter on it to Mr. Willis E. Gray, general superintendent of the Alton, at Bloomington, which is as follows: "I have known the bearer, Mr. J. D. Green, for the past 6 years, and can recommend him as a first-class man in every way."

He presented that letter to Mr. Gray at Bloomington and attached it to his application for work, and Mr. Gray told him that in the morning he would report to him—he would have his application investigated; said they needed men. Finally, on February 24, he received the following letter from Mr. Gray: "Answering your communication of February 17, I beg to advise that as soon as a favorable opportunity arises I will let you hear from me as to employment. At present our business is dull and we have a good many extra men." A few days before that he had said they needed men.

A few days later Mr. Gray returned the letters saying his application was not satisfactory, and for that reason he could not employ him. He was never able to get work on any railroad. They all said they could not hire him unless he had a clearance.

J. H. Dungan, another very important witness, testified that he had been an employee of the Northern Pacific, which is outside of the General Managers' Association, and that he had sought work from a good many railroads, but had been denied; that he obtained temporary jobs, but was discharged because his application was rejected until, finally he got a job at Argentine, Kans., in charge of a switch engine, and worked from the fall of 1894 through the winter of 1894 and the spring of 1895, when he was discharged and told by the yard master that it was because his application was rejected. He had referred to the Northern Pacific Railroad. He then sought to be reinstated, and wrote a letter to Mr. H. U. Mudge, general superintendent of the Atchison, Topeka and Santa Fé Railroad Company, being the road he had worked for, asking why he had been discharged after working so long and giving such satisfactory services. Previous to this he had received a letter from John Z. Roraback, superintendent of the Atchison, Topeka and Santa Fé Railroad, dated at Kansas City, March 21, 1895, on the regular form of that railroad, as follows: "This is to certify that John H. Dungan has been employed in the capacity of switchman at Argentine, Kans., on the Kansas City Ter-

minal Division, from August 23, 1894, to March 18, 1895; was discharged on account of previous record unsatisfactory; services while here were satisfactory."

He went to Topeka and pursued Mr. Mudge, who was on the move constantly, until finally he had to write to him "on the line," on March 27, 1895. This road at that time was in the hands of the United States court, and the officials of the United States court, Aldace F. Walker, John J. McCook, Joseph C. Wilson, receivers, were in charge of the road, showing that even the officers of the United States court were a party to that conspiracy. The letter was on the regular form of the company, Eastern Grand Division: "Mr. J. H. Dungan, Argentine, Kans., Dear Sir: Acknowledging receipt of yours of the 21st, I have investigated the matter and find that immediately upon your being employed letters were written to ascertain your record with the Northern Pacific. The delay is entirely due to the fact that they neglected to reply earlier to references. It is against the policy of the receivers to have any man who was mixed up with the strike; and if we intended to do so, there are certainly a large number of men who had worked for this company who should be given preference over men from other roads. In being allowed to work five months you were more fortunate than most others, and I regret to say that I do not see my way clear to do anything further for you in this case. Respectfully, H. U. Mudge, General Superintendent."[1]

There were so many witnesses who testified to similar experiences, and who had similar letters, that I will ask leave to incorporate, as a part of my testimony, an article which I wrote on this subject and which is published in the *Arena* for March, 1899, containing excerpts of the testimony of other witnesses, in order to save time. It is taken from the testimony, what I consider the material parts, and contains photographs of 4 letters and the front page of what we claim is the Illinois Central blacklist. I should like to incorporate it.

Post-War Wages of Women

Summary of Analysis

22.[2] For the majority of the women and girls employed in the industry, the investigation indicates a low level of earnings. Of the entire number for whom wage data were available, 1,361 (67.0 per cent) have actual earnings that average less than $12 a week. Of the adult workers, those 18 years of age and over, 62.1 per cent earn less than $12 a week; while of those with one or more years' experience in the industry, 57.5 per cent earn less than this amount. Nearly one-half (48.2 per cent) of the women averaging 46 hours or more a

[1] Editor's Note.—This letter is given in facsimile reproduction, as are several others.

[2] Commonwealth of Massachusetts, Minimum Wage Commission, Bulletin No. 21, November, 1919, *Second Report of the Wages of Women in Corset Factories in Massachusetts*, p. 19, (Boston, 1920.)

week, approximately full-time workers, receive less than $12; and 39.9 per cent, even under the most favorable conditions of regular employment and freedom from interruption, would earn less than $12 a week for full-time employment.

Compared with the previous investigation, that of 1913, the wage situation as shown by average weekly earnings appears less favorable than six years ago. Assuming the aproximate equivalence * in purchasing power of $5, $7, and $9 in 1913 with $9, $12, and $15, respectively, in 1919, the corresponding percentages of women receiving less than these amounts in each period are: in 1913, 20.0 per cent, 53.5 per cent and 83.6 per cent, respectively; and in 1919, 36.8 per cent, 67.1 per cent, and 89.6 per cent, respectively.

In connection with these figures it should be remembered that the corset industry was seriously affected by war conditions; that the period covered by the study was one of transition; and that, owing to temporary adjustments in piece rates and bonus systems, a particularly unfavorable picture of the wage situation is presented.

23.[1] *Average Weekly Earnings.*—Pay-roll records available for tabulation were secured for a total number of 2,658 women employed in the four branches of the men's clothing and furnishing trades covered in this study. Of these, only 421 women (15.8 per cent) earned an average weekly wage of $9 or over, while 1,003, or over twice that number (37.7 per cent), earned an average weekly wage of less than $6. The industries which paid the highest wages were the overall and neckwear trades, the former employing the smallest proportion of workers who earned less than $6, and the latter the largest proportion of workers who earned $9 or over. The suspender and garter trades paid the lowest wages, judged both by the proportion earning $9 or over and the proportion earning less than $6. Machine operating, the work in which the majority of women were engaged, was found to be the highest paid of the occupations in which women are customarily employed in these trades.

Labor in the Iron and Steel Industry

24.[2] The fact that stands out most strikingly in any study of the labor conditions in the iron and steel industry in the United States is the unusually long schedule of working hours to which the larger number of the employees in this industry are subject.

* The United States Bureau of Labor Statistics gives the increase in retail food prices in May, 1919, as 91.0 per cent over the same month in 1913, and an increase in all items of family expenditures in Boston from July, 1914, to July, 1919, of 75 per cent.

[1] Commonwealth of Massachusetts Minimum Wage Commission, Bulletin No. 15, December, 1917, *Wages of Women in Shirt, Workingmen's Garment and Furnishing Goods Factories in Massachusetts,* p. 32 (Boston, 1918).

[2] *Report on Conditions of Employment in the Iron and Steel Industry in the United States. 62nd Cong., 1st Sess., Senate Doc. No. 110,* vol. i, pp. xiv-xvii. Prepared under the direction of Charles P. Neill.

During May, 1910, the period covered by this investigation, 50,000, or 29 per cent, of the 173,000 employees of blast furnaces and steel works and rolling mills covered by this report customarily worked 7 days per week, and 20 per cent of them worked 84 hours or more per week, which, in effect, means a 12-hour working day every day in the week, including Sunday. The evil of 7-day work was particularly accentuated by the fact developed in the investigation, that the 7-day working week was not confined to the blast-furnace department where there is a metallurgical necessity for continuous operation, and in which department 88 per cent of the employees worked 7 days a week; but it was also found that, to a considerable extent, in other departments where no such metallurgical necessity can be claimed, productive work was carried on on Sunday just as on other days of the week. For example, in some establishments the Bessemer converters, the open-hearth furnaces, and blooming, rail, and structural mills were found operating 7 days a week for commercial reasons only.

The hardship of a 12-hour day and a 7-day week is still further increased by the fact that every week or two weeks, as the case may be, when the employees on the day shift are transferred to the night shift, and vice versa, employees remain on duty without relief either 18 or 20 consecutive hours, according to the practice adopted for the change of shift. The most common plan to effect this change of shift is to work one shift of employees on the day of change through the entire 24 hours, the succeeding shift working the regular 12 hours when it comes on duty. In some instances the change is effected by having one shift remain on duty 18 hours and the succeeding shift work 18 hours. During the time that one shift is on duty, of course, the employees on the other shift have the same number of hours of relief from duty.

That much of the Sunday labor which has been prevalent in the steel industry is no more necessary than in other industries is shown conclusively by the fact that at the time of the investigation made in 1910 by this Bureau into the conditions of labor in the Bethlehem Steel Works, the president of the Steel Corporation directed the rigid enforcement of a resolution adopted three years previous, cutting out a large part of Sunday work except in the blast-furnace department. Even in the blast-furnace department, where there is a metallurgical necessity for continuous operation day and night throughout 7 days of the week, there is practically nothing except the desire to economize in the expense of production that has prevented the introduction of a system that would give each employee 1 day of rest out of the 7.

Since the beginning of the present investigation, however, this matter of abolishing 7-day work for the individual employees in the blast furnaces, as well as in other departments of the industry, has received the attention of the American Iron and Steel Institute, and through a committee of that organization a plan has been proposed which gives each employee one day of rest each week. A number of the plants

throughout the country have, at the instance of the Institute, adopted this plan or some modification of it, and have successfully operated it for several months. A thorough discussion of these plans and of their value in solving the problem to which they are applied will be found in the volume dealing with the general conditions of labor in the industry.

During the investigation those in charge of the plants have in their discussions with representatives of the Bureau frequently emphasized the fact that the men working these very long hours are not kept busy all the time. To a considerable extent this is perfectly true; but the employees in question are on duty and subject to orders during the entire period, and they are not, except in rare instances, allowed to leave the plant. It should not be overlooked that it is not simply the character or the continuity of the work, but the fact that in the case of the 12-hour-a-day man one-half of each 24 hours—more than three-fourths of his waking hours—is spent on duty in the mills, which is of significance to the worker and his family. Nothing has been done by the manufacturers nor have any proposals been made to lessen the proportion of men working 72 hours or more per week. It was found in this investigation that nearly 43 per cent of the 173,000 employees in the iron and steel industry were working at least 72 hours per week, or 12 hours per day for 6 days a week. This proportion remains unchanged, being unaffected by the plan to give the men who were working 84 hours per week one day of rest in seven.

An added significance attaches to the conditions of labor here described as characteristic of the iron and steel industry when we consider that the general tendency in other industries for years past has been toward a shorter working-day. Years ago the 10-hour day became almost a standard; since that time further reductions have brought the working-day to 9, and in many cases, to 8 hours, and this reduction has been accompanied by a part holiday on Saturday. It is, therefore, in striking contrast to this general tendency in other industries to find in a great basic industry, such as that part of the iron and steel industry covered in this report, that approximately only 14 per cent of the 173,000 employees work less than 60 hours per week and almost 43 per cent work 72 hours or over per week.

Another striking characteristic of the labor conditions in the iron and steel industry is the large proportion of unskilled workmen in the labor force. These unskilled workmen are very largely recruited from the ranks of recent immigrants. For the industry as a whole, not far from one-half of the 91,463 employees in the productive iron and steel occupations included within this investigation were of the class of unskilled workmen. In the blast-furnace department, the largest single department in the industry, more than two-thirds of the 24,722 employees in productive occupations were unskilled laborers, a large proportion of whom do not yet speak or understand English; and even

in the South the number of immigrants employed in the industry is rapidly increasing.

Taking the employees in all occupations in the industry, nearly 60 per cent are foreign-born, and nearly two-thirds of the foreign-born are of the Slavic races. Large as is the proportion that unskilled labor forms of the total labor force in the iron and steel industry, steel experts have noted the fact that the tendency of recent years has been steadily toward the reduction of the number of highly skilled men employed and the establishment of the general wage on the basis of common or unskilled labor. Nor is this tendency likely to diminish, since each year sees a wider use of mechanical appliances which unskilled labor can easily be trained to handle.

Of the total of 172,706 employees, 13,868, or 8.03 per cent, earned less than 14 cents per hour, 20,527, or 11.89 per cent, earned 14 and under 16 cents, and 51,417, or 29.77 per cent, earned 16 and under 18 cents. Thus 85,812, or 49.69 per cent of all the employees, received less than 18 cents per hour. Those earning 18 and under 25 cents per hour number 46,132, or 26.71 per cent, while 40,762, or 23.61 per cent, earned 25 cents and over. A few very highly skilled employees received $1.25 per hour, and those receiving 50 cents and over per hour numbered 4,403, or 2.55 per cent of all employees.

In general it may be said that earnings of less than 18 cents per hour represent unskilled labor. The group earning 18 and under 25 cents per hour represents semi-skilled workmen, while those earning 25 cents and over per hour are skilled employees. The most common rate per hour for unskilled labor in the New England district was 15 cents; in the Eastern district, 13 and 14 cents; in the Pittsburgh district, 16 and 17 cents; in the Great Lakes and Middle West district, 15, 16, and 17 cents; and in the Southern district, 10, 12½, 13, and 13½ cents.

Causes for the Steel Strike of 1919

25.[1] FINDINGS

1. The fundamental grievances were found to be:
   (a) Excessive hours.
   (b) The "boss system."
   (c) No right to organize or to representation.
2. The remedies desired were:
   (a) Shorter day and week with a living wage.
   (b) Representation and conference, and an end to the "boss system" which so often subjects common labor to petty tyrannies.

[1] *Report on the Steel Strike of 1919 by the Commission of Inquiry, The Interchurch World Movement With the Technical Assistance of the Bureau of Industrial Research, N. Y.*, pp. 246–251, New York, 1920. Used by permission of the publishers, Harcourt, Brace & Company.

(c) Right to unionize and a substitution of industrial democracy for industrial autocracy.

3. These grievances were of long standing, but had found no expression because:
   (a) They were limited largely to foreigners of many races and languages without industrial tradition, education, or leadership to organize.
   (b) Race prejudice effectually kept the more skilled, more intelligent, and better paid American workmen from taking up the cause of the foreign-speaking workmen.
   (c) Labor unions have been accustomed to look upon the foreigner as an actual or potential strike breaker.
   (d) The steel companies have most effectually deterred men from joining labor organizations.
4. These long-standing grievances were brought to expression by:
   (a) The part these workingmen played in the war and the treatment afforded them for the sake of war production which gave them a new sense of worth and independence.
   (b) The fight for democracy and news of a larger workingmen's freedom in their native lands together with a growing sense of real Americanism, which brought a spirit of democracy to their ranks.
   (c) The decision of the American Federation of Labor to organize them and its actual work of organizing them into Craft Unions.
5. We found:
   (a) That the strike was regularly conducted in orthodox fashion according to the A. F. of L. rules and principles.
   (b) That while radicals sympathized with the strikers, as was natural, they were effectually debarred by the strike leaders and that far from having influence in it, they often denounced and opposed those who conducted the strike.
6. We find the grievances to have been real:
   (a) The average week of 68.7 hours, the twelve-hour day, whether on a straight twelve-hour shift or on a broken division of 11–13 or 10–14 hours, the unbroken 24-hour work period at the turn of a shift and the underpayment of unskilled labor, are all inhuman.
   (b) It is entirely practicable to put all processes requiring continuous operation on a straight eight-hour basis as is illustrated by the Colorado Fuel and Iron Company. These processes require the services of only a fraction of the workers.
   (c) The "boss system" is bad, the plant organization is

military and the control autocratic. The companies' claims, that they accord the right to join unions and the opportunity of conference, are theoretical; neither is allowed in practice.

(d) The use of "under-cover" men is severely condemned. It breeds distrust, breaks down morals and stimulates ill-will; it is undemocratic and un-American.

(e) The refusal of the United States Steel Corporation to confer, to accept mediation and its attitude of hauteur as shown by its refusal to follow the recommendations of the War Labor Board incited labor strife and, because of the strength and influence of this Corporation, forms one of the greatest obstacles to a just settlement of industrial grievances and unrest at this time.

7. The Strike was defeated by:

(a) The strike-breaking methods of the steel companies and their effective mobilization of public opinion against the strikers through the charges of radicalism, bolshevism, and the closed shop, none of which were justified by the facts; and by the suppression of civil rights.

(b) The hostility of the press giving biased and colored news and the silence of both press and pulpit on the actual question of justice involved; which attitudes of press and pulpit helped to break the strikers' morale.

(c) Public fear of a general labor war, to the coincidence of the coal strike and threat of the railroad strike, together with labor's failure to formulate and explain its purposes with regard to public service.

(d) The prevailing prejudice in the steel towns and in the general public mind and among the English-speaking workingmen against the foreigners who constituted the overwhelming number of the strikers.

(e) The ineffective support given the strike by most of the twenty-four affiliated Craft Unions through which it was organized, and by the A. F. of L.

8. Recommendations:

1. The adoption of the eight-hour shift on all continuous processes.
2. Limiting of the day to not more than ten hours on duty, with not more than a six-day and a fifty-four hour week, with at least a minimum comfort wage.
3. Recognition of right to join regular Craft Unions or any other freely chosen form of labor organization; recognition of right to open conference, either through shop committees or union representatives; recognition of right of collective bargaining.

4. A vast extension of house building—by the communities where possible; by the steel companies where community building is inadequate or impossible.
5. That organized labor:
   (a) Democratize and control the unions, especially in regard to the calling, conduct and settlement of strikes.
   (b) Reorganize unions with a view of sharing in responsibility for production and in control of production processes; to this end:
      1. Repudiating restriction of production as a doctrine.
      2. Formulating contracts which can be lived up to.
      3. Finding a substitute for the closed shop wherever it is a union practice.
   (c) Scrupulously avoid all advocates of violence.
   (d) Accept all possible proffers of publicity and conciliation.
   (e) Promote Americanization in all possible ways and insist upon an American standard of living for all workingmen.
   (f) Prepare more adequate technical information for the public in regard to all conditions bearing upon the calling and the conduct of a strike.
   (g) Seek alliance and council from the salaried class known as brain workers.
6. That the President's Industrial Conference's plan for standing tribunals of conciliation and publicity be given a fair trial. We believe that the most effective step to be taken for the obtaining of justice in a strike situation is through publicity, conciliation and a voluntary system of arbitration; and as a beginning we recommend the fullest publication of these findings and of our more complete reports.
7. That minimum wage commissions be established and laws enacted providing for an American standard of living through the labor of the natural bread-winner, permitting the mother to keep up a good home and the children to obtain at least a high school education.
8. That the Federal Government investigate the relations of Federal Authorities to private corporations' "undercover" men and to "labor detective agencies."
9. That the eight-hour day be accepted by labor, capital and the public as the immediate goal for the working day and that the government provide by law against

working days that bring over-fatigue and deprive the individual, his home and his community of that minimum of time which gives him an opportunity to discharge all his obligations as a social being in a democratic society.

We recommend to the press that it free itself of the all too well founded charge of bias, favoring capital as against labor and redeem its power as a promoter of truth and a formulator of public opinion by searching out all the facts in regard to industrial questions and publishing them without fear or favor.

We plead with the pulpit that it be diligent to discharge its legitimate prophetic rôle as an advocate of justice, righteousness and humanity in all such conflicts of human interest as those involved in industrial strife.

We condemn unsparingly those authorities who suspended the right of free speech and peaceful assemblage before, during and after the steel strike.

We recommend that the Industrial Department of the Inter-church World Movement and the Social Service Commission of the Federal Council of Churches continue this type of impartial investigation of industrial strife and unrest and extend it to studies of general conditions in industry affecting the life, peace, and welfare of all concerned and that their findings be published as a means of enlightening public opinion, begetting impartial judgment, and promoting industrial justice and peace.

Conclusion.

All the conditions that caused the steel strike continue to exist. We feel that unless changes are made approximating in some degree the findings here presented, further unrest is inevitable and another strike must come. In the measure that workingmen become intelligent and Americanized, will they refuse to labor under such conditions.

Distribution of Immigrants, 1850-1926

Growth of Foreign-Born Population

26.[1] Prior to the Fourth Census, taken in 1820, the returns made no distinction between alien, foreign-born, and native population. In

[1] *61st Cong., 3rd Sess., Senate Doc. No. 756, Senate Documents, Vol. xx. Reports of the Immigration Commission, Distribution of Immigrants, 1850–1900,* pp. 409–411. Washington, 1911.

Editor's Note.—As part of an immigration bill passed February 20, 1907, Congress created a joint Commission on Immigration to study the problem in all its phases and report on the same. The results of its investigations were 42 volumes, published in 1911, the first adequate survey of American immigration yet made. The recommendations of this Commission were influential in the Act of 1914. See Garis, R. L., *Immigration Restriction,* pp. 113, 117ff. New York, 1927.

1820, for the first time, provision was made to return aliens, that is, foreigners not naturalized. This provision was repeated in 1830, but not in 1840. In 1850 the census schedule asked for place of birth, thereby securing information as to the nativity of every inhabitant. The same information has been secured at each succeeding census. In addition it was ascertained in 1870 whether or not the parents of an inhabitant were of foreign birth, and since 1880 the places of birth of father and mother have been returned.

The following table gives the foreign-born population of continental United States by census years since 1820 and the decennial increase and percentage of increase since 1850.

TABLE 1.—FOREIGN-BORN POPULATION OF CONTINENTAL UNITED STATES, BY CENSUS YEAR: 1820 TO 1900.

Census year.	Foreign-born population.	Increase since preceding census.	
		Number.	Per cent.
1900	10,341,276	1,091,716	11.8
1890	9,249,560	2,569,617	38.5
1880	6,679,943	1,112,714	20.0
1870	5,567,229	1,428,532	34.5
1860	4,138,697	1,894,095	84.4
1850	2,244,602	.....	.....
1840	[a]	.....	.....
1830[b]	107,832	.....	.....
1820[c]	53,687	.....	.....

[a] No figures available.

[b] Aliens—foreigners not naturalized. An additional 5,477, given as "number of aliens, etc., in New York City," is not included.

[c] Aliens—foreigners not naturalized.

The foreign-born population of continental United States showed an uninterrupted increase between 1850 and 1900. During the 50 years the number of foreign-born grew to more than four and a half times its original figure, or from 2,244,602 to 10,341,276. In the decade 1850 to 1860 the foreign-born population increased by 1,894,095, or 84.4 per cent. This percentage of increase was greater than in any succeeding decade, but the numerical increase was greatest in the decade 1880 to 1890, when the foreign-born population increased 2,569,617. It is noteworthy that the smallest numerical increase, as

well as the smallest percentage of increase, was that recorded for 1890 to 1900—the last decade of the half century covered by the table.

TABLE 2.—IMMIGRATION AND INCREASE OF FOREIGN-BORN POPULATION BY DECADE: 1850 TO 1900.

Decade.	Total recorded immigration.	Increase in foreign-born population, according to census.		Total immigration from Europe.	Increase in population born in Europe, according to census.	
		Number.	Per cent of recorded immigration.		Number.	Per cent of recorded immigration.
1890 to 1900..	3,687,564	1,091,716	29.6	3,558,783	851,287	23.9
1880 to 1890..	5,246,613	2,569,617	49.0	4,737,046	2,276,297	48.1
1870 to 1880..	2,812,191	1,112,714	39.6	2,272,262	807,693	35.5
1860 to 1870..	2,369,878	1,428,532	60.3	2,124,305	1,130,917	53.2
1850 to 1860..	2,648,912	1,894,095	71.5	2,488,138	1,773,834	71.3

It is interesting in this connection to compare the decennial increase in the foreign-born population enumerated by the census with the statistics of immigration compiled by the Bureau of Immigration. In the decade 1850 to 1860 an immigration from Europe of 2,488,138 produced an increase of 1,773,834 in the population of European birth. Forty years later, in the decade 1890 to 1900, a European immigration of 3,558,783 produced an increase of only 851,287 in the population born in Europe. Thus an immigration that was 50 per cent greater produced an increase only one-half as great. The explanation of this contrast is readily seen. The increase in the foreign-born population during any period is the net result of immigration, deaths, and emigration or return migration. Expressed in the form of an equation:

Increase = immigration — deaths and return migration.

In 1890 the foreign-born population present in this country was four times as great as it was in 1850. Therefore, at the present time it takes a much larger immigration merely to make good the losses through death than it did when the foreign-born population was smaller and contained fewer old people.

The statistics of the census of 1900 indicate that not more than 70 per cent of the total number of immigrants entering the United States in the ten-year period between 1890 and 1900 were found in this country at the end of that period. The others had either died or returned to the country from which they came or remigrated to some other country. This statement is based on the following figures:

TABLE 3.—DISTRIBUTION OF FOREIGN-BORN POPULATION, BY PERIOD OF IMMIGRATION: 1900.

Period of immigration.	Foreign-born population of continental United States in 1900.
Total	10,341,276
1890—1900	2,609,173
1880—1890	3,503,042
Prior to 1880	4,229,061

In this table the 1,012,653 foreign-born persons for whom the date of immigration was not ascertained are distributed pro rata on the basis of the distribution shown by the 9,328,623 foreign-born persons whose length of residence in the United States was ascertained. On this basis it is found that in 1900 there were living in the United States 2,609,173 foreign-born who had immigrated since 1890; 3,503,042 who immigrated between 1880 and 1890; and 4,229,061 who immigrated prior to 1880.

In the decade 1890 to 1900 the total recorded immigration was 3,687,564. According to the census the number of foreign-born present in the United States in 1900 who had emigrated during that period was, as just stated, 2,609,173. Assuming that the census figures are approximately accurate, then if the record of immigration was complete, the difference between these totals would represent the number of immigrants coming in between 1890 and 1900 who died or remigrated before the end of the decade. The difference is 1,078,391, or 29 per cent of the total recorded immigration. As a matter of fact, however, the record of immigration is not complete, as it includes only a small part of the immigration across the Canadian and Mexican borders. Therefore, the percentage of immigrants who died or returned must have been considerably greater than this comparison would indicate.

The total recorded immigration from Europe between 1890 and 1900 was 3,558,783, which may be accepted as a practically complete record. In 1900 the total population born in Europe was, according to the census, 8,871,895; but the census does not show what proportion of this total number immigrated since 1890, the period of immigration being given for the total foreign-born only. Assuming, however, that the proportion would be the same for the population born in Europe as for the total foreign-born population, the number of Europeans in the United States in 1910 who immigrated between 1890 and 1900 would be 2,238,332, which is 62.9 per cent of the total immigration from Europe in that period and would mean that 37.1 per cent either died

or returned to Europe or migrated to foreign territory in other parts of the world before the end of the decade.

Distribution of Immigrants, Urban and Rural, 1900

Concentration in Cities

27.[1] In 1900 the 10,341,276 foreign-born residing in continental United States were distributed by class of place of residence as indicated in the following table:

TABLE 12.—DISTRIBUTION OF FOREIGN-BORN POPULATION OF CONTINENTAL UNITED STATES, BY CLASS OF PLACE OF RESIDENCE: 1900.

Class of place of residence	Number	Per cent distribution
Total	10,341,276	100.0
Cities of 2,500 or over	6,859,078	66.3
100,000 or over	4,008,085	38.8
25,000 to 100,000	1,122,196	10.8
8,000 to 25,000	953,827	9.2
4,000 to 8,000	479,866	4.6
2,500 to 4,000	295,104	2.9
Smaller cities and country districts	3,482,198	33.7

From the preceding table it will be seen that 38.8 per cent of the foreign-born population of continental United States in 1900 resided in cities having at least 100,000 inhabitants. The percentage in cities having a population of from 25,000 to 100,000 was 10.8, making the total percentage in cities having at least 25,000 to 100,000 inhabitants 49.6, or practically one-half. The percentage in smaller cities, having a population of from 2,500 to 25,000, was 16.7, or one-sixth, and in country districts 33.7, or one-third.

To gauge the degree of concentration in cities indicated by these percentages, it is necessary to introduce corresponding percentages for the native population, which is done in the following table:

The preceding table shows clearly that the foreign-born population of continental United States is concentrated in cities to a much greater degree than the native population. Of the total foreign-born popula-

[1] *61st Cong., 3rd Sess., Senate Doc. No. 756, Senate Documents, Vol. xx. Reports of the Immigration Commission, Distribution of Immigrants 1851–1900,* pp. 420–421. Washington, 1911.

TABLE 13.—PERCENT DISTRIBUTION OF NATIVE AND FOREIGN-BORN POPULATION OF CONTINENTAL UNITED STATES, BY CLASS OF PLACE OF RESIDENCE: 1900.

Class of place of residence	Native-born	Foreign-born
Total	100.0	100.0
Cities of 2,500 or over	36.1	66.3
100,000 or over	15.5	38.8
25,000 to 100,000	6.7	10.8
8,000 to 25,000	6.6	9.2
4,000 to 8,000	4.4	4.6
2,500 to 4,000	2.9	2.9
Smaller cities and country districts	63.9	33.7

tion, 66.3 per cent reside in cities having a population of at least 2,500, but only 36.1 per cent of the native population are so classed. The larger the cities, the greater the disparity between the percentage of foreign-born population and of native population residing in such cities.

Shift in European Immigration, 1919

The European Situation

28.[1] During the century for which records of our immigration are available approximately 89 per cent of the movement came from Europe; 2.4 per cent from Asia, and somewhat less than 9 per cent from other sources. The proportion of Europeans varied somewhat at different periods, but as a rule it was more than 90 per cent of the total. Numerically, therefore, Europe was, up to the outbreak of the war, by far the most prolific source of our immigration, and undoubtedly its preponderance in that respect will be resumed when normal conditions are again established.

The history of European immigration is a familiar one, but as a basis for what follows, a brief review of the extent and character of that unprecedented movement will not be out of place here.

As already stated, nearly 90 per cent of all our immigration has come from Europe, which means in round numbers approximately 30,000,000 souls during the past century. The United Kingdom furnished the largest number, approximately 8,200,000, of whom nearly

[1] *Annual Report of the Commissioner General of Immigration to the Secretary of Labor—Fiscal Year Ended June 30, 1919,* pp. 42–43. Washington, 1919.

4,350,000 came from Ireland. Germany followed with nearly 5,500,000 immigrants, and then come Italy, Austria-Hungary, Russia, and the Scandinavian countries in the order named. Prior to 1870 nearly all our European immigrants came from northern and western nations, which is to say, Belgium, France, Germany, the Netherlands, Scandinavia, Switzerland, and the United Kingdom. Up to that time, in fact, approximately 6,648,000 came from such sources, compared with less than 70,000 from other European countries, comprising Austria-Hungary, Bulgaria, Serbia, Montenegro, Greece, Italy, Poland, Portugal, Roumania, Russia, Spain, and Turkey in Europe. Immigration from Asiatic Turkey is also included with the latter, as the peoples coming from that source are racially more closely related to some of the southeastern Europeans than they are to other Asiatic races who have come to this country from the Far East. In what follows, therefore, immigration from Turkey in Asia is included in southern and eastern European immigration without so specifying in each case.

In the decade 1871–1880, when in round numbers 2,071,000 immigrants came from northern and western Europe, the number from southern and eastern countries had increased to about 201,000. In the next decade, 1881–1890, the numbers admitted from these sources were 3,779,000 and 960,000, respectively. This is the last decade in which immigration from the older sources was in the majority, for in the 10 years 1891–1900, the northern and western countries sent 1,644,000 compared with a southern and eastern European contribution of 1,942,000. A much greater change, however, is shown in the records of the next decade (1901–1910) when 6,300,000 came from the new sources and only 1,911,000 from the old, and these proportions continued up to the outbreak of the war in 1914.

It is a commonly known fact that during the years when this change was taking place in the immigrant tide the industrial life of the United States was also revolutionized, and that southern and eastern European immigrants played an important part in that unparalleled development. In fact, the new stream of immigration from its beginning has been essentially a more or less temporary movement to industrial centers and the cities, and although the immigrants come mostly from the farms of Europe, comparatively few of them have shown an inclination to go to the land here, either on arrival or afterwards. On the contrary, the old immigration came during a period when agricultural development was in the ascendency; was distributed to nearly every part of the country; went into all branches of industry, and as a rule the immigrants became permanent home makers.

Restriction of Immigration—A Résumé, 1923

29.[1] Perhaps it is not very generally realized that the per centum limit law marked the beginning of actual restriction or limitation of

[1] *Annual Report of the Commissioner General of Immigration to the Secretary of Labor—Fiscal Year Ended June 30, 1923,* pp. 2–4. Washington, 1923.

immigration to the United States from Europe, Africa, Australasia, and a considerable part of Asia. The Chinese exclusion act of 1882, the passport agreement with Japan which became effective in 1908, and the "barred zone" provision in the general immigration law of 1917 had already stopped or greatly reduced the influx of oriental peoples, but so far as others, and particularly Europeans, were concerned, all applicants who met the various tests prescribed in the general law were admitted. This general law, first enacted in 1882 and several times revised and strengthened, was and still is based on the principle of selection rather than of numerical restriction. It is probably true that the provision barring illiterate aliens from admission, which was added to the general law in 1917, was intended as a restrictive measure rather than a quality test, but in its practical effect it was only another addition to the already numerous class of alleged undesirables who were denied admission, and obviously could not be relied upon actually to limit the volume of immigration.

The immigration act of 1882, which, as already indicated, was the first general law upon the subject, provided for the exclusion from the United States of the following classes only: Convicts, lunatics, idiots, and persons likely to become a public charge. This law underwent more or less important revisions in 1891, 1893, 1903, 1907, and 1917, until the last-mentioned act, which is the present general immigration law, denies admission to many classes of aliens, including the following: Idiots, imbeciles, feeble-minded persons, epileptics, insane persons; persons who have had one or more attacks of insanity at any time previously; persons of constitutional psychopathic inferiority; persons with chronic alcoholism; paupers; professional beggars; vagrants; persons afflicted with tuberculosis in any form or with a loathsome or dangerous contagious disease; persons certified by the examining physician as being mentally or physically defective, such physical defect being of a nature which may affect the ability of the alien to earn a living; persons who have been convicted of or admit having committed a felony or other crime or misdemeanor involving moral turpitude; polygamists, or persons who practice polygamy or believe in or advocate the practice of polygamy; anarchists and similar classes; immoral persons and persons coming for an immoral purpose; contract laborers; persons likely to become a public charge; persons seeking admission within one year of date of previous debarment or deportation; persons whose ticket or passage is paid for with the money of another or who are assisted by others to come, unless it is affirmatively shown that such persons do not belong to one of the foregoing excluded classes; persons whose ticket or passage is paid for by any corporation, association, society, municipality, or foreign government, either directly or indirectly; stowaways; children under 16 years of age unless accompanied by one or both of their parents; persons who are natives of certain geographically defined territory; aliens over 16 years of age who are unable to read some language or

dialect; certain accompanying aliens, as described in the last proviso of section 18 of the act; and persons who have arrived in Canada or Mexico by certain steamship lines. Persons who fail to meet certain passport requirements were added to the excluded classes in subsequent legislation.

Obviously it would be difficult to find, or even to invent, many other terms denoting individual undesirability which might be added to the foregoing list, but, as already pointed out, the general law is essentially selective in theory, for even its most rigid application with respect to the excludable classes above enumerated could not be depended upon to prevent the coming of unlimited numbers of aliens who were able to meet the tests imposed.

Even a casual survey of congressional discussions of the immigration problem during the past quarter of a century demonstrates very clearly that while the law makers were deeply concerned with the mental, moral, and physical quality of immigrants, there developed as time went on an even greater concern as to the fundamental racial character of the constantly increasing numbers who came. The record of alien arrivals year by year had shown a gradual falling off in the immigration of northwest European peoples, representing racial stocks which were common to America even in colonial days, and a rapid and remarkably large increase in the movement from southern and eastern European countries and Asiatic Turkey. Immigration from the last-named sources reached an annual average of about 750,000 and in some years nearly a million came, and there seems to have been a general belief in Congress that it would increase rather than diminish. At the same time no one seems to have anticipated a revival of the formerly large influx from the "old sources," as the countries of northwest Europe came to be known.

This remarkable change in the sources and racial character of our immigrants led to an almost continuous agitation of the immigration problem both in and out of Congress, and there was a steadily growing demand for restriction, particularly of the newer movement from the south and east of Europe. During the greater part of this period of agitation the so-called literacy test for aliens was the favorite weapon of the restrictionists, and its widespread popularity appears to have been based quite largely on a belief, or at least a hope, that it would reduce to some extent the stream of "new" immigration, about one-third of which was illiterate, without seriously interfering with the coming of the older type, among whom illiteracy was at a minimum.

Presidents Cleveland and Taft vetoed immigration bills because they contained a literacy test provision, and President Wilson vetoed two bills largely for the same reason. In 1917, however, Congress passed a general immigration bill which included the literacy provision over the President's veto, and, with certain exceptions, aliens who are unable to read are no longer admitted to the United States. At that time, however, the World War had already had the effect of reducing

immigration from Europe to a low level, and our own entry into the conflict a few days before the law in question went into effect practically stopped it altogether. Consequently, the value of the literacy provision as a means of restricting European immigration was never fairly tested under normal conditions.

The Congress, however, seemingly realized that even the comprehensive immigration law of 1917, including the literacy test, would afford only a frail barrier against the promised rush from the war-stricken countries of Europe, and in December, 1920, the House of Representatives, with little opposition, passed a bill to suspend practically all immigration for the time being. The per centum limit plan was substituted by the Senate, however, and the substitute prevailed in Congress, but it failed to become a law at the time because President Wilson withheld executive approval. Nevertheless, favorable action was not long delayed, for at the special session called at the beginning of the present administration the measure was quickly enacted, and, with President Harding's approval, became a law on May 19, 1921. This law expired by limitation June 30, 1922, but by the act of May 11, 1922, its life was extended to June 30, 1924, and some strengthening amendments were added.

The principal provisions of the per centum limit act, or the "quota law," as it is popularly known, are as follows:

The number of aliens of any nationality who may be admitted to the United States in any fiscal year shall not exceed 3 per cent of the number of persons of such nationality who were resident in the United States according to the census of 1910.

Monthly quotas are limited to 20 per cent of the annual quota.

For the purposes of the act, "nationality" is determined by country of birth.

The law does not apply to the following classes of aliens: Government officials; aliens in transit; aliens visiting the United States as tourists or temporarily for business or pleasure; aliens from countries immigration from which is regulated in accordance with treaties or agreement relating solely to immigration, otherwise China and Japan; aliens from the so-called Asiatic barred zone; aliens who have resided continuously for at least five years in Canada, Newfoundland, Cuba, Mexico, Central or South America, or adjacent islands; aliens under the age of 18 who are children of citizens of the United States.

Certain other classes of aliens who are counted against quotas are admissible after a quota is exhausted. The following are included in this category: Aliens returning from a temporary visit abroad; aliens who are professional actors, artists, lecturers, singers, ministers of any religious denomination, professors for colleges or seminaries, members of any recognized learned profession, or aliens employed as domestic servants.

So far as possible preference is given to the wives and certain near relatives of citizens of the United States, applicants for citizenship

and honorably discharged soldiers, eligible to citizenship, who served in the United States military or naval forces at any time between April 6, 1917, and November 11, 1918.

Transportation companies are liable to a fine of $200 for each alien brought to a United States port in excess of the quota and where such fine is imposed the amount paid for passage must be returned to the rejected alien.

The quota limit law is in addition to and not in substitution for the provisions of the immigration laws.

Immigration, 1914-1924

30.[1] Disregarding the nonimmigrant and nonemigrant classes and considering immigrant and emigrant aliens only, which, as already explained, means those coming for permanent residence here or departing for permanent residence abroad, the record disclosed by the table referred to is even more interesting and significant. This is especially true with reference to the record of the last five years of the period which follows:

Year	Immigrant aliens	Emigrant aliens
1920	430,001	288,315
1921	805,228	247,718
1922	309,556	198,712
1923	522,919	81,450
1924	706,896	76,789

During the World War, and especially after the United States entered the conflict, the number of aliens who came here for permanent residence was only a fraction of the great influx which had come in times of peace. In the year ended June 30, 1914, a total of 1,218,480 immigrant aliens were admitted. The war began in August, 1914, and in the year ended June 30, 1915, the number admitted was only 326,700 and more than 60,000 of these came in the month of July, 1914. In September of that year only 29,143 immigrants entered the country compared with 136,247 in the previous September. In the entire fiscal year ended June 30, 1918, only 110,618 came and in the following year only 141,132. The various countries of Europe which had contributed 1,055,855 immigrant aliens in 1912–13 and 1,058,391 in 1913–14, sent only 197,919 in 1914–15, 145,699 in 1915–16, and 133,083 in 1916–17. After the United States entered the war immigration from Europe almost ceased, only 55,690 being admitted from that source in the two years ended June 30, 1919.

Following the treaty of peace, however, immigration quickly revived. In the fiscal year 1920 a total of 430,001 immigrant aliens were admitted and in the following year the number reached 805,228. Then

[1] *Annual Report of the Commissioner General of Immigration to the Secretary of Labor—Fiscal Year Ended June 30, 1924,* pp. 2–3. Washington, 1924.

came the per centum limit act of May 19, 1921, and in the following year (the fiscal year ended June 30, 1922) the number of admissions dropped to 309,556. It was evident that the result was due to the quota law, but that result was not to be a permanent one so far as numbers were concerned, for in the year ended June 30, 1923, our immigration increased to 522,919, and, in the fiscal year just ended, to 706,896.

The great, perhaps almost startling, increase in immigration during the past two years might very naturally suggest a substantial breaking down of the per centum limit law, but such is not the fact. What happened was almost entirely due to three important factors that might have been discerned at the time the law was enacted.

1. The quota limit provision was applicable only to Europe, Africa, Australasia, and that part of Asia commonly known as the Near East. It did not seek to limit immigration from Canada, Mexico, and other parts of the New World.

2. The quotas allotted to the British Isles, Germany, and other countries of northwestern Europe were greater, and in some instances very much greater, than the normal immigration from those countries. In other words, reckoning on the basis of immigration during the quarter of a century preceding the act, the quota law put a severe restriction on the hitherto great movements from countries of south and east Europe and the Near East, but left the way open for substantial increases from north and west Europe.

3. The quota limit law, like all preceding immigration legislation, contained a good many exceptions under which applicants could be admitted in excess of allotted quotas, and during the past fiscal year such admissions were also considerably increased by reason of court decisions which, until reversed by the Supreme Court late in the year, materially liberalized the terms of the law.

Immigration Act of 1924

31.[1] It will undoubtedly be considered that the most important event in the immigration history of the fiscal year was the passage of the act of May 26, officially known as the "Immigration act of 1924." This legislation which supplants the so-called quota limit act of May 19, 1921, the latter having expired by limitation at the close of the fiscal year just ended, makes several very important changes not only in our immigration policy but also in the administrative machinery of the Immigration Service. Some of the more important changes in these respects will be briefly referred to.

It will be remembered that the quota limit act of May, 1921, provided that the number of aliens of any nationality admissible to the United States in any fiscal year should be limited to 3 per cent of the number of persons of such nationality who were resident in the

[1] *Annual Report of the Commissioner General of Immigration to the Secretary of Labor—Fiscal Year Ended June 30, 1924,* pp. 24–27. Washington, 1924.

United States according to the census of 1910, it being also provided that not more than 20 per cent of any annual quota could be admitted in any one month. Under the act of 1924 the number of each nationality who may be admitted annually is limited to 2 per cent of the population of such nationality resident in the United States according to the census of 1890, and not more than 10 per cent of any annual quota may be admitted in any month except in cases where such quota is less than 300 for the entire year.

Under the act of May, 1921, the quota area was limited to Europe, the Near East, Africa, and Australasia. The countries of North and South America, with adjacent islands, and countries immigration from which was otherwise regulated, such as China, Japan, and countries within the Asiatic barred zone, were not within the scope of the quota law. Under the new act, however, immigration from the entire world, with the exception of the Dominion of Canada, Newfoundland, the Republic of Mexico, the Republic of Cuba, the Republic of Haiti, the Dominican Republic, the Canal Zone, and independent countries of Central and South America, is subject to quota limitations. The various quotas established under the new law are shown in the following proclamation of the President, issued on the last day of the present fiscal year:

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

Whereas it is provided in the act of Congress approved May 26, 1924, entitled "An act to limit the immigration of aliens into the United States, and for other purposes" that—

> "The annual quota of any nationality shall be two per centum of the number of foreign-born individuals of such nationality resident in continental United States as determined by the United States census of 1890, but the minimum quota of any nationality shall be 100 (Sec. 11(a)).
>
> "For the purposes of this Act nationality shall be determined by country by birth * * * (sec. 12(a)).
>
> "The Secretary of State, the Secretary of Commerce, and the Secretary of Labor, jointly, shall, as soon as feasible after the enactment of this act, prepare a statement showing the number of individuals of the various nationalities resident in continental United States as determined by the United States census of 1890, which statement shall be the population basis for the purposes of subdivision (a) of section 11 (sec. 12(b)).
>
> "Such officials shall, jointly, report annually to the President the quota of each nationality under subdivision (a) of section 11, together with the statements, estimates, and revisions provided for in this section. The President shall proclaim and make known the quotas so reported." (Sec. 12(e)).

And whereas satisfactory evidence has been presented to me that the Secretary of State, the Secretary of Commerce, and the Secretary of Labor, pursuant to the authority conferred upon them in the act of Congress approved May 26, 1924, have made the statement and the quotas therein provided.

Now, therefore, I, Calvin Coolidge, President of the United States of America acting under and by virtue of the power in me vested by the aforesaid act of Congress, do hereby proclaim and make known that on and after July 1, 1924, and throughout the fiscal year 1924–1925, the quota of each nationality provided in said Act shall be as follows:

Country or area of birth	*Quota* 1924–1925
* Afghanistan	* 100
Albania	100
Andorra	100
Arabian peninsula (1, 2)	100
Armenia	124
Australia, including Papua, Tasmania, and all islands appertaining to Australia (3, 4)	121
Austria	785
Belgium (5)	512
* Bhutan	* 100
Bulgaria	100
Cameroon (proposed British mandate)	100
Cameroon (French mandate)	100
* China	* 100
Czechoslovakia	3,073
Danzig, Free City of	228
Denmark (5, 6)	2,789
Egypt	100
Esthonia	124
Ethiopia (Abyssinia)	100
Finland	471
France (1, 5, 6)	3,954
Germany	51,227
Great Britain and Northern Ireland (1, 3, 5, 6)	34,007

* For each of the countries indicated by an asterisk (*) is established a nominal quota according to the minimum fixed by law. These nominal quotas, as in the case of all quotas hereby established, are available only for persons born within the respective countries who are eligible to citizenship in the United States and admissible under the immigration laws of the United States.

	Quota 1924–1925
Greece	100
Hungary	473
Iceland	100
* India (3)	* 100
Iraq (Mesopotamia)	100
Irish Free State (3)	28,567
Italy, including Rhodes, Dodekanesia, and Castellorizzo (5)	3,845
* Japan	* 100
Latvia	142
Liberia	100
Liechtenstein	100
Lithuania	344
Luxemburg	100
Monaco	100
Morocco (French and Spanish Zones and Tangier)	100
* Muscat (Oman)	* 100
Nauru (proposed British mandate) (4)	100
* Nepal	* 100
Netherlands (1, 5, 6)	1,648
New Zealand (including appertaining islands (3, 4)	100
Norway (5)	6,453
* New Guinea, and other Pacific Islands under proposed Australian mandate (4)	* 100
Palestine (with Trans-Jordan, proposed British mandate)	100
Persia (1)	100
Poland	5,982
Portugal (1, 5)	503
Ruanda and Urundi (Belgium mandate)	100
Rumania	603
Russia, European and Asiatic (1)	2,248
Samoa, Western (4) proposed mandate of New Zealand)	100
San Marino	100
* Siam	* 100
South Africa, Union of (3)	100

* For each of the countries indicated by an asterisk (*) is established a nominal quota according to the minimum fixed by law. These nominal quotas, as in the case of all quotas hereby established, are available only for persons born within the respective countries who are eligible to citizenship in the United States and admissible under the immigration laws of the United States.

	Quota 1924–1925
South West Africa (proposed mandate of Union of South Africa)	100
Spain (5)	131
Sweden	9,561
Switzerland	2,081
Syria and The Lebanon (French mandate)	100
Tanganyika (proposed British mandate)	100
Togoland (proposed British mandate)	100
Togoland (French mandate)	100
Turkey	100
*Yap and other Pacific islands (under Japanese mandate) (4)	*100
Yugoslavia	671

* For each of the countries indicated by an asterisk (*) is established a nominal quota according to the minimum fixed by law. These nominal quotas, as in the case of all quotas hereby established, are available only for persons born within the respective countries who are eligible to citizenship in the United States and admissible under the immigration laws of the United States.

1. (a) Persons born in the portions of Persia, Russia, or the Arabian peninsula situated within the barred zone, and who are admissible under the immigration laws of the United States as quota immigrants, will be charged to the quotas of these countries; and (b) persons born in the colonies, dependencies, or protectorates, or portions thereof, within the barred zone, of France, Great Britain, the Netherlands, or Portugal, who are admissible under the immigration laws of the United States as quota immigrants, will be charged to the quota of the country to which such colony or dependency belongs or by which it is administered as a protectorate.

2. The quota-area denominated "Arabian peninsula" consists of all territory except Muscat and Aden, situated in the portion of that peninsula and adjacent islands, to the southeast of Iraq, of Palestine with Trans-Jordan, and of Egypt.

3. Quota immigrants born in the British self-governing dominions or in the Empire of India, will be charged to the appropriate quota rather than to that of Great Britain and Northern Ireland. There are no quota restrictions for Canada and Newfoundland.

4. As shown on Chart No. 1262a, Hydrographic Office, United States Navy Department.

5. Quota immigrants eligible to citizenship in the United States, born in a colony, dependency, or protectorate of any country to which a quota applies will be charged to the quota of that country.

6. In contrast with the law of 1921, the immigration act of 1924 provides that persons born in the colonies or dependencies of European

countries situated in Central America, South America, or the islands adjacent to the American continents (except Newfoundland and islands pertaining to Newfoundland, Labrador and Canada), will be charged to the quota of the country to which such colony or dependency belongs.

General Note.—The immigration quotas assigned to the various countries and quota-areas should not be regarded as having any political significance whatever, or as involving recognition of new governments, or of new boundaries, or of transfers of territory except as the United States Government has already made such recognition in a formal and official manner.

In witness whereof I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington, this thirtieth day of June, in the year of our Lord one thousand nine hundred and twenty-four and of the independence of the United States of America the one hundred and forty-eighth.

[seal]

(Signed) Calvin Coolidge.

By the President:
Charles E. Hughes,
Secretary of State.

CHAPTER XIX

ECONOMIC IMPERIALISM

THE export trade of the United States has always been an important factor in her economic life. During the Colonial period, tobacco, foodstuffs, and raw materials for manufacture were exported in large quantities, and after the Revolution, cotton speedily became the greatest single export. The need on the part of a new country for capital and finished products provided the chief impetus for an export trade which grew steadily as the frontier pushed westward, but three centuries of economic development considerably modified the character of American commerce. Enormous resources of raw materials combined with many other factors made inevitable a rapid growth of manufacturing, a development which was destined to affect radically the content and direction of foreign trade. In earlier years foodstuffs and raw materials had furnished the major part of American exports; in 1924 these had declined and manufactured products comprised more than 60 per cent of all exports. As a complement to this the importations of manufactured products declined relatively, and that of foodstuffs and raw materials for manufacture increased. As American export trade shifted to manufactured products, its direction likewise changed. Europe, which had been an outlet for three centuries for food and raw materials, declined relatively, while Asia grew in importance (1).

While these fundamental changes were occurring in the movement of commodities, an equally radical change had taken place in the movement of capital. As a new country in need of economic development, the movement of capital from the time of the first settlements had been from Europe to America (2). Transportation, manufacturing, mining, and even ranching had to no small extent been developed with the aid of European capital. Although this flow had been inward until the World War, by the opening of the twentieth century the production of wealth in America had become so rapid that the United States was not only supplying the bulk of her own capital needs, but exporting considerable amounts to Canada, Mexico, Central and South America, and even Asia. With the World War this process was speeded up. The conflict left most of the warring nations bankrupt or on the verge

of insolvency, and the United States, which had loaned them nine and a half billion dollars during the war, became the great creditor nation of the world. The world's financial capital shifted from London to New York, and the United States, which since the first Spanish settlements had been a debtor nation, now became the reservoir from which capital was drawn both for the rehabilitation of Europe and for the development of economically backward regions (3).

As wealth available for foreign investment accumulated and as the United States became more definitely an exporter of manufactured products she embarked on the inevitable road of economic and political imperialism. The Washington government, dominated during most of the period since the election of Lincoln by the manufacturing and banking interests, has stepped forward time and again to coöperate in the process of economic penetration. This policy can be seen especially in Asia and Latin America. The conquest of the Philippine Islands was followed by a more aggressive attitude toward China, where the American demand for an opportunity to trade on equal terms with European nations was laid down in no unmistakable terms in Secretary Hay's famous "Open door" message of 1899 (4), and in his Memorandum respecting Manchuria of 1902 (5).

It is in Latin America, however, that the United States has played most effectively the rôle of economic imperialism. Although Roosevelt and other political leaders have insisted that the United States feels no "land hunger" and is interested in other nations of the Western Hemisphere only "for their welfare" (6), the process of reducing the nations of the Caribbean to political and economic subjection has gone on steadily from McKinley to Coolidge. The Spanish-American War won Porto Rico and reduced Cuba to a dependency; the building of the Panama Canal created the dependent nation of Panama; and the process thus commenced was continued with the establishment of protectorates over Haiti, Santo Domingo, and Nicaragua. Recent loans to other Latin American nations have commenced the same process elsewhere (9).

The technique of this imperialism has been characterized by efficiency if not by finesse, and has been accompanied, as Senator Borah points out (10), with the usual employment of physical force and ruthless disregard of native rights or wishes. The method can to some extent be seen in the Haitian Treaty of 1915 (7), in the Dominican loan of 1922 (8), and in the Bolivian loan of 1922 (9). It would be unfair, however, to picture American imperialism as simply a ruthless aggression in which politicians and bankers

have coöperated to bring weaker nations under the domination of the United States. There has been, likewise, a beneficent phase to this imperialism. Army medical officers conquered the yellow-fever scourge in Cuba and Panama, and government and private engineers and educators have built roads, improved transportation, and established schools. The denunciation directed at the American occupation of Haiti and the Dominican Republic led to a Senate investigation in which the brighter side of this story is told (11 and 12). Although the United States was able to ride roughshod over diminutive nations of the type of Haiti and Nicaragua, her dealings with Mexico have of necessity been a trifle more restrained. Nevertheless, under the pressure of American interests, particularly those concerned with oil, the United States has sent two armed expeditions into that unfortunate country since the outbreak of revolutions in 1910, and has been involved in a long controversy over Article 27 of the Mexican Constitution of 1917 (13). Although a sufficiently satisfactory understanding was reached in August, 1923, to bring about the recognition by the United States of the Obregon government, friction arising from this famous article has continued.

In an exploiting nation there is bound to be much talk not only of the "white man's burden," but of the civilizing mission which the stronger nation has to perform. In part this is sincere, and in part it is defense rationalization for taking away the liberties of a weaker people. Whatever the cause, the United States has indulged in it in the same naïve fashion that has been customary with the most imperialistic people of Europe (14).

Development of Commerce as Influenced by Natural Resources

1.[1] The value of the foreign trade of the United States in 1924 was eight times that of fifty years ago, though the population was only three times as large. Eight billion dollars is a considerable investment for one year in the foreign trade enterprise, $4,600,000,000 being exports, and $3,600,000,000 imports. Among the nations of the world only the United Kingdom exceeds this foreign trade budget.

In its attitude toward foreign trade, however, the United States differs markedly from its English neighbor. In spite of the great value of its foreign trade, the domestic market is worth yet more to the American producer, for he exports his goods principally in order to be able to import raw materials for his factories and luxuries for his own use. This country is, and will be for some years to come,

[1] Strong, Dr. Helen M., Geographer, United States Bureau of Foreign and Domestic Commerce, Washington, D. C., "Geography in the Foreign Trade Prospects of the United States," *American Economic Review,* vol. xvi, no. 1, Supplement, March, 1926, pp. 125–128. Used by permission of the author and editors.

so nearly self-sustaining that foreign trade will not be to the people a question of food and very existence, though it must necessarily be of great importance in relation to the business prosperity of the United States.

This enormous increase in foreign trade has grown out of the economic development of the country founded, consciously or unconsciously, upon the utilization of its natural resources and the relation of geographic and economic elements to similar factors in other lands. When the population of this country was small, its farm area large, and its manufacturing industry small in proportion to domestic needs, more than half its exports were crude foodstuffs or other crude products, but in 1924 these formed only about a quarter of all exports, while manufactured products of all kinds had increased to more than 60 per cent of all exports. The relative position of these two groups among imports into the United States presents a complement to the export movement, and just as directly grows out of economic and geographic conditions within the American commonwealth and the nations from whom it buys. In 1875 approximately 30 per cent of our imports were crude materials and crude foodstuffs, nearly 70 per cent being manufactured goods, but in 1924 nearly half our imports belonged to the former groups, by far the larger share being crude materials for use in manufacture.

Thus, it is apparent that the foreign trade of the United States is expanding vigorously, and at the same time, that the balance is shifting in favor of manufactured goods among exports and to crude products in imports. Another transition related closely to the future commercial development of the United States also is taking place in regional distribution of its foreign trade. About the same proportion belongs to North America and South America as before 1914, but there is a significant change in that for Europe and Asia. Before the war 62 per cent of our exports and 50 per cent of our imports were credited to Europe. In 1924, however, these proportions were 53 and 30 per cent respectively. Asia accounted for only 6 per cent of our exports and 15 per cent of our imports before 1914, and in 1924, 11 per cent of our exports and 26 per cent of our imports belonged to Asia. Direct shipping connections and larger volume of trade with Asia largely are responsible for this growing importance. These shifts mean broadly a more even regional distribution of the commercial interests of the United States throughout the world. It is clearly evident that these trends have not occurred by chance, but have evolved naturally from interaction of basic factors in American trade, which will be potent elements in shaping future commercial developments. Not all nations possess the same natural resources as to kind and quantity, neither are they in the same stage of economic development. Herein exist, in some cases, conditions which will foster continuous exchange and in others, a relatively temporary mutual dependence.

Natural resources of a permanent or renewable nature will favor constant commerce between regions having contrasting but complementary permanent or renewable resources. The more important natural resources of such a character in the United States are location with reference to other regions, area, climate, land surface, soil, and water power. Its mineral resources will last a longer or shorter time as the case may be.

Of all the great producing areas, and in fact, of all the great nations, the United States is the only one whose domain extends from ocean to ocean, affording an outlook toward both the densely peopled manufacturing lands of Europe, and the yet more thickly inhabited areas of China, Japan, and India, where manufacturing has begun to create new and larger demands with greater purchasing power for some of the people. The United States also is fortunate in being situated north of the equator on an east-west route connecting it with most of the world's land areas. Fortunately, its breadth is not as great as that across Europe and Asia, and though large in extent, the area yet is favorable for transportation of commodities from coast to coast by rail or via Panama. No difficult barren deserts and mountains bar movement from coast to coast as is the case with Eurasia.

The larger area of the United States gives it extensive crop lands, with more probability of varied and abundant mineral deposits, and greater variety of climates, than is the case with smaller countries.

The climates of England, the Mediterranean, Russia, China, Japan, the Argentine, Chile, Southern Brazil, and southern Australia are all found in the United States. Manifestly climate makes for similarity of products between these countries and the United States, and exchange must be on the basis either of contrast in other natural resources or in stage or kind of economic development. Only two kinds of climate are lacking in the United States—polar and tropical. Since at present, agriculture is not especially flourishing around the poles, equatorial lands are those which grow the only commercial crops which cannot be raised in the United States, as far as climate is concerned. Rubber, coffee, coconuts, jute, cacao or crude cocoa can be raised only where there is no frost, while sugar can be grown extensively and gives yields only with twelve months' growing season. These six commodities alone made up more than one-fourth of all imports in 1924, while tropical agricultural products as a whole amounted to about $2,000,000,000 or about half all imports. Here is a basis for permanent trade due to permanent climatic differences, for within historic time climates do not change. Difference in time of occurrence of seasons between the northern and southern hemispheres also affords a background for permanent trade, as it enables a year-round supply of products to be maintained in the markets of the United States by importing from countries south of the equator.

Surface and soil provide a valuable working capital for production of goods. The former is a permanent resource, while the fertility of

the soil is renewable and therefore permanent if proper methods of cultivation are used. Another extremely valuable resource belonging to the United States is its large area of level fertile land, exceeded in extent by that of no other agricultural region. This makes possible the large-scale production of cotton, wheat, corn, and hogs. More than one-third in value of all exports from the United States, amounting in value to more than $1,600,000,000 is made up of these products.

If our watersheds are protected properly, hydroelectric power will be a permanent resource, important for transportation and manufacture. Power at moderate cost is an important aspect in enabling our manufactured goods to compete in foreign markets.

The mineral resources of the United States are an outstanding element both in its internal economic life and in its foreign trade. The American deposits of coal, iron, copper, petroleum, and phosphate form a significant part of the world's supply of these resources. About 55 per cent of the world's copper and iron is produced in the United States, and 70 per cent of the petroleum, while this country possesses half the known coal of the world. In addition to being extensive, most of these deposits are located favorably for utilization. They occur in large units, situated nearer the surface than many similar deposits in foreign countries. Exports of these commodities themselves and products manufactured from them make up more than one-fourth of American exports. The significance of coal power in manufacturing goods for export further indicates the value of these mineral resources in foreign trade. The large size of the deposits of American coal, located near the surface, with thick enough veins for machine mining, as well as their high quality, gives the United States a competing advantage over other countries, such as Britain, Germany, and France. In the case of countries possessing small or low grade deposits of coal, the United States will have an advantage for some time to come due to difference in economic development, and hence difference in products. Argentina, Chile, and Russia are such countries. Furthermore, in tropical countries, climate is not conducive to manufacturing, which makes them markets for exports of manufactured goods. From the foregoing, it may be seen that considerably more than half the export trade, and the same proportion of import trade, is based on permanent or relatively permanent differences in natural resources between the United States and the foreign countries with which it trades.

Due to one cause or another, aside from relation to natural resources, economic development differs in degree from country to country. Manufacturing industry could expand in this country because of the abundance of power and raw materials. Both agriculture and manufacturing, however, received their initial impetus from large demands in the home market. With the opening of the canals in the United States in the 1820's and 1830's, and immediately afterwards the railroads, the vast level fertile prairies were linked with foreign

markets, and began to feed the manufacturing peoples of northwest Europe. Development of these same middle west lands offered a compelling domestic market for American manufacturing activities, which responded vigorously to this demand that has absorbed most of their attention until the last decade or two.

This country has experienced the same process of evolution in manufacturing as came earlier to European countries, so that today the differences in products are not so great as in earlier years. However, in comparison with other regions such as those in the Far East and in Southern Brazil, the United States is sufficiently ahead in industrial development to offer a basis of exchange with these people having similar climates hence similar needs and tastes to those in the United States.

A summary view of the world trade situation reveals one outstanding fact growing out of the natural resources and economic development of the regions concerned. Foreign trade, to function most profitably and efficiently for all concerned, must become a complementary, co-operative world enterprise between nations, not a war of monopolistic competition. The United States will consume more of its own food products and manufacture the goods for which its raw materials give it economic advantage, while its permanent trade will be with regions of different natural resources which require its manufactured articles, and with areas providing commodities which cannot be produced in the United States. Due to the high standard of living here, these will include both raw materials for factories and luxuries in the way of food, clothing, and equipment of various kinds. Our manufactured exports will pay for these imports, while we will, to a large extent, provide our own necessities, as well as some luxuries in the way of food, clothing, and shelter.

When the United States was a Debtor Nation

2.[1] Only in comparatively recent years has the United States become a great creditor nation. Within less than a decade, she has become an outstanding investor in the external loans and internal loans of almost every foreign nation.

As a new and developing country, the United States needed and borrowed money from abroad to finance its industrial and governmental operations. A survey of American history during the nineteenth century shows that the United States was a debtor nation during the whole of that century, when foreign governments as well as foreign peoples were lending us money.

In 1843 a committee of the House of Representatives made a report in which it was estimated that the amount of state and city debt held outside of the United States was $150 million, practically all of which

[1] Dunn, Robert W., *American Foreign Investments,* pp. 1–3. New York, 1926. Used by permission of the author and the Viking Press.

had been borrowed before 1839. Some $125 million of this amount had been invested in the United States during the period of 1821 to 1837.*

In spite of the panic of 1837 which scared off European investors for several years, the value of American securities held by foreigners in 1854 was estimated by the Secretary of the Treasury at $222 million.† By 1860 the amount had risen to approximately $400 million, from which high point it declined as railroad and other securities held abroad were returned for sale in substantial amounts during the Civil War.

When the panic of 1873 broke, the total of American securities held in Europe had increased to $1,500 million, but it sank again as a result of the ensuing depression. With the developing railway boom and the period of rapid industrial expansion, the amount increased to some two billion dollars in 1880. Of this amount $1,535 million was invested in American railway securities.‡ The heavy import of capital during this period, it is estimated, raised the total of all American securities held abroad in 1890 to about three billion dollars. Subsequent withdrawals during the years following the 1893 panic reduced it to $2,200 millions.

According to N. T. Bacon § approximately $3,300 million of European capital was invested here, chiefly in railroads, on January 1, 1899. On the same date America's entire investment in the obligations of other governments and foreign corporations did not amount to more than $500 million—$150 million of which was in Canada, $185 million in Mexico, $50 million in Cuba, $10 million in Europe, $55 million in other Latin American countries, $5 million in China and Japan and $45 million in life insurance company guarantee investments in Russia and elsewhere. This left the United States in debt to the outside world to the tune of about $2,800 million.

In the period between the spring of 1904 and the autumn of the year following, some $535 million of Japanese loans was floated in the American and European markets. In March 1907 when $115 million of this was refunded half of the amount was carried by American financial houses.||

A summary of our foreign investment developments from then on is given by H. E. Fisk:

> Nine years later (1909) United States investments abroad are estimated to have reached a total of $2,000,000,000. Canada was then a debtor to the United States in the sum of $500,000,000 and Mexico for from $600,000,000 to $700,000,000 while

* *Review of Economic Statistics*, vol. i. pp. 217–218.
† *Ibid.*, p. 220.
‡ U. S. National Monetary Commission, *Publications*, vol. xx, p. 173.
§ *Yale Review*, vol. ix, pp. 265–285.
|| *Annalist*, vol. xvi, p. 452.

our investments in Europe had reached the relatively high total of $350,000,000.*

By the close of 1913 we had invested outside of our own borders around, perhaps over, $2,500,000,000. This figure is higher than the accepted estimates, but we believe it to be a close approximation to the facts.†

The distribution of these foreign investments at the close of 1913 according to the same authority is as follows:‡

Country	Amount (in millions).
Canada	$ 750
Cuba	100
Mexico	1,050
Central America	50
South America	100
Europe	350
China and Japan	100
Philippine Islands	75
Porto Rico	30
Total	$2,605 million.

Granting that this estimate is not too liberal, and it is far higher than that given by other authorities, we still find the United States at the outbreak of the war a debtor to the world, for according to D. R. Crissinger, Comptroller of the Currency, foreign investors in 1914 owned from four to five billion dollars of American securities.§ This left us still in debt to foreign countries by at least $2,500 million to $3,000 million.

Thus we see the correctness of the statement by Bullock and his associates in their careful study, that "for the whole period 1896–1914 the net flow of capital investment was decidedly into the United States." ||

The United States as a Creditor Nation

3.[1] The amount of income received from foreign sources by residents of the United States can only be estimated on the basis of known investments and average yields. Income-tax statistics are not yet compiled for 1924 or 1923, and those compiled for previous years do not include all income from abroad. In 1922, 1,521 citizens residing

* Fisk, *Inter-Ally Debts*, p. 306.

† *Idem.*

‡ *Ibid.*, p. 307.

§ *Economic World*, n. s. vol. xxiv, p. 413.

|| *Review of Economic Statistics*, vol. i, p. 230.

[1] United States Department of Commerce, *Trade Information Bulletin No. 340*, "The Balance of International Payments in the United States in 1924," pp. 11–13.

abroad reported $11,364,148 and 33,418 citizens residing in the United States reported $43,025,275 of income from foreign sources. Also 1,266 corporations reported net profits of $40,000,000 from foreign business. In 1924 it is believed such incomes were considerably larger. Nonrealized profits, incomes under $5,000, and interest on loans payable in the United States are not included in these figures, which are therefore much below the truth. The amount of interest on foreign loans publicly issued and still outstanding is reckoned in the following table:

INTEREST RECEIVED IN 1924 ON FOREIGN SECURITIES ISSUED IN UNITED STATES

[Millions of dollars]

	Par value	Rate of interest	Amount of interest
		Per cent	
Foreign securities issued here and outstanding Jan. 1, 1924	*3,717	†5.9	219
Foreign Government and Government guaranteed securities floated here in 1924 (excluding refunding)	775	†6.0	‡23
Foreign corporation securities floated here in 1924 (excluding refunding)	103	†6.5	‡3
Total	4,595	†5.9	245
Deduct: Foreign securities paid off during 1924 and not refunded	45	†5.9	‡1
Outstanding Dec. 31, 1924	4,550	†5.9	244

* Estimated.
† Average.
‡ Interest for half a year only.

In addition to the above securities, Americans have invested largely in foreign-currency bonds and in real estate and industrial enterprises abroad. The amount of such investments can only be roughly stated. Even the amount of American-issued bonds held by Americans is not exactly ascertainable, as many issues floated in this country have been partly sold to foreigners, either at the time of issue or later. The best evidence available indicates that the distribution of total foreign investments is as shown in the following table. The total for the end of 1923, as published in Trade Information Bulletin 215, was $8,000,000,000, but later information seems to show that it was nearer

$8,105,000,000, as investments in Canada were apparently overestimated by some $50,000,000, and investments in Japan, China, and the Philippines underestimated by $155,000,000. Some securities previously classed as industrial are here entered as Government guaranteed, since they do not represent such an active interest in foreign industry and commerce as do non-guaranteed bonds, stocks, and direct investments.

ESTIMATED VALUE OF AMERICAN INVESTMENTS ABROAD AT THE END OF 1924

[Millions of dollars]

Region	Government guaranteed obligations	Industrial securities and direct investments	Total
Canada and Newfoundland	1,060	*1,400	2,460
Latin America†	840	3,200	4,040
Europe	1,500	400	1,900
Asia and Oceania‡	440	250	690
Total	3,840	5,250	9,090

* The apparent decline, when compared with the figures given in Trade Information Bulletin 215, is due mainly to the transfer of $300,000,000 of Canadian Government railway securities to the column of Government obligations.

† Excluding Porto Rico. $140,000,000 of Mexican railway obligations, previously included with industrial securities, are here given as Government-guaranteed.

‡ Including Philippines. The figure of $190,000,000, given as the value of Government obligations in 1923 in Trade Information Bulletin 215, should have been $360,000,000, according to more recent information. That of $250,000,000 for industrial securities, etc., should have been $235,000,000.

The interest on foreign loans floated in the American market and payable in dollars is for the most part not included in the amount reported in the income-tax statistics as being derived from foreign sources, but is treated for tax purposes as domestic income. Consequently the $43,000,000 mentioned above as being received from abroad by individuals and the $40,000,000 received by corporations in 1922 should be added to the estimated income from such bonds, giving a total of $325,000,000 as the interest and profits on foreign investments. This total, however, is only a minimum figure, as it omits a good many small incomes and ignores accrued profits not realized in taxable form. Moreover, the taxable income earned abroad in 1924 was probably greater than in 1922. Consequently the figure of $455,000,000, equivalent to 5 per cent of the estimated value of for-

eign investments, may be taken as more nearly approximating the total amount of interest and profits on foreign investments during 1924. To this must be added $159,000,000 received by the United States Government as interest on its loans to Great Britain and other governments.

Open Door in China

4.[1] Mr. Hay to Mr. White

Department of State
Washington, September 6, 1899.

Sir: At the time when the Government of the United States was informed by that of Germany that it had leased from His Majesty the Emperor of China the port of Kiao-chao and the adjacent territory in the province of Shantung, assurances were given to the ambassador of the United States at Berlin by the Imperial German minister for foreign affairs that the rights and privileges insured by treaties with China to citizens of the United States would not thereby suffer or be in anywise impaired within the area over which Germany had thus obtained control.

More recently, however, the British Government recognized by a formal agreement with Germany the exclusive right of the latter country to enjoy in said leased area and the contiguous "sphere of influence or interest" certain privileges, more especially those relating to railroads and mining enterprises; but, as the exact nature and extent of the rights thus recognized have not been clearly defined, it is possible that serious conflicts of interest may at any time arise, not only between British and German subjects within said area, but that the interests of our citizens may also be jeopardized thereby.

Earnestly desirous to remove any cause of irritation and to insure at the same time to the commerce of all nations in China the undoubted benefits which should accrue from a formal recognition by the various powers claiming "spheres of interest" that they shall enjoy perfect equality of treatment for their commerce and navigation within such "spheres," the Government of the United States would be pleased to see His German Majesty's Government give formal assurances and lend its coöperation in securing like assurances from the other interested powers that each within its respective sphere of whatever influence—

First. Will in no way interfere with any treaty port or any vested interest within any so-called "sphere or interest" or leased territory it may have in China.

Second. That the Chinese treaty tariff of the time being shall

[1] Malloy, W. M., *Treaties, Conventions, International Acts, Protocols, and Agreements Between the United States of America and Other Powers*, 1776–1909, vol. i, pp. 246–247. Washington, 1910.

apply to all merchandise landed or shipped to all such ports as are within said "sphere of interest" (unless they be "free ports"), no matter to what nationality it may belong, and that duties so leviable shall be collected by the Chinese Government.

Third. That it will levy no higher harbor dues on vessels of another nationality frequenting any port in such "sphere" than shall be levied on vessels of its own nationality, and no higher railroad charges over lines built, controlled, or operated within its "sphere" on merchandise belonging to citizens or subjects of other nationalities transported through such "sphere" than shall be levied on similar merchandise belonging to its own nationals transported over equal distances.

The liberal policy pursued by His Imperial German Majesty in declaring Kiao-chao a free port and in aiding the Chinese Government in the establishment there of a custom-house are so clearly in line with the proposition which this Government is anxious to see recognized that it entertains the strongest hope that Germany will give its acceptance and hearty support.

The recent ukase of His Majesty the Emperor of Russia declaring the port of Ta-lien-wan open during the whole of the lease under which it is held from China, to the merchant ships of all nations, coupled with the categorical assurances made to this Government by His Imperial Majesty's representative at this capital at the time, and since repeated to me by the present Russian ambassador, seem to insure the support of the Emperor to the proposed measure. Our ambassador at the Court of St. Petersburg has, in consequence, been instructed to submit it to the Russian Government and to request their early consideration of it. A copy of my instruction on the subject to Mr. Tower is herewith inclosed for your confidential information.

The commercial interests of Great Britain and Japan will be so clearly served by the desired declaration of intentions, and the views of the Governments of these countries as to the desirability of the adoption of measures insuring the benefits of equality of treatment of all foreign trade throughout China are so similar to those entertained by the United States, that their acceptance of the propositions herein outlined and their coöperation in advocating their adoption by the other powers can be confidently expected. I inclose herewith copy of the instruction which I have sent to Mr. Choate on the subject.

In view of the present favorable conditions, you are instructed to submit the above considerations to His Imperial German Majesty's minister for foreign affairs, and to request his early consideration of the subject.

Copy of this instruction is sent to our ambassadors at London and at St. Petersburg for their information.

I have, etc.,

JOHN HAY.

Equality of Opportunity in Manchuria

5.[1] Memorandum Respecting Manchuria—February 1, 1902

Department of State.
Washington, February 1, 1902.

An agreement by which China cedes to any corporation or company the exclusive right and privilege of opening mines, establishing railroads, or in any other way industrially developing Manchuria, can but be viewed with the gravest concern by the Government of the United States. It constitutes a monopoly, which is a distinct breach of the stipulations of treaties concluded between China and foreign powers, and thereby seriously affects the rights of American citizens; it restricts their rightful trade and exposes it to being discriminated against, interfered with, or otherwise jeopardized, and strongly tends toward permanently impairing the sovereign rights of China in this part of the Empire, and seriously interferes with her ability to meet her international obligations. Furthermore, such concession on the part of China will undoubtedly be followed by demands from other powers for similar and equal exclusive advantages in other parts of the Chinese Empire, and the inevitable result must be the complete wreck of the policy of absolute equality of treatment of all nations in regard to trade, navigation, and commerce within the confines of the Empire.

On the other hand, the attainment by one power of such exclusive privileges for a commercial organization of its nationality conflicts with the assurances repeatedly conveyed to this Government by the Imperial Russian ministry of foreign affairs of the Imperial Government's intention to follow the policy of the open door in China, as advocated by the Government of the United States and accepted by all the treaty powers having commercial interests in that Empire.

It is for these reasons that the Government of the United States, animated now, as in the past, with the sincerest desire of insuring to the whole world the benefits of full and fair intercourse between China and the nations on a footing of equal rights and advantages to all, submits the above to the earnest consideration of the Imperial Governments of China and Russia, confident that they will give due weight to its importance and adopt such measures as will relieve the just and natural anxiety of the United States.

Roosevelt on Latin America

6.[2] It is not true that the United States feels any land hunger or entertains any projects as regards the other nations of the Western Hemisphere save such as are for their welfare. All that this country

[1] *Papers Relating to the Foreign Relations of the United States—1902,* pp. 275–276. Washington, 1903.

[2] *Congressional Record, 58th Cong., 3rd Sess.,* vol. xxix, p. 19. President Roosevelt's Annual Message delivered to Congress, December 6, 1904.

desires is to see the neighboring countries stable, orderly, and prosperous. Any country whose people conduct themselves well can count upon our hearty friendship. If a nation shows that it knows how to act with reasonable efficiency and decency in social and political matters, if it keeps order and pays its obligations, it need fear no interference from the United States. Chronic wrongdoing, or an impotence which results in a general loosening of the ties of civilized society, may in America, as elsewhere, ultimately require intervention by some civilized nation, and in the Western Hemisphere the adherence of the United States to the Monroe Doctrine may force the United States, however reluctantly, in flagrant cases of such wrongdoing or impotence, to the exercise of an international police power. If every country washed by the Caribbean Sea would show the progress in stable and just civilization which with the aid of the Platt amendment Cuba has shown since our troops left the island, and which so many of the republics in both Americas are constantly and brilliantly showing, all questions of interference by this Nation with their affairs would be at an end. Our interests and those of our southern neighbors are in reality identical. They have great natural riches, and if within their borders the reign of law and justice obtains, prosperity is sure to come to them. While they thus obey the primary laws of civilized society they may rest assured that they will be treated by us in a spirit of cordial and helpful sympathy. We would interfere with them only in the last resort, and then only if it became evident that their inability or unwillingness to do justice at home and abroad had violated the rights of the United States or had invited foreign aggression to the detriment of the entire body of American nations. It is a mere truism to say that every nation, whether in America or anywhere else, which desires to maintain its freedom, its independence, must ultimately realize that the right of such independence can not be separated from the responsibility of making good use of it.

Dollar Diplomacy as Actually Carried Out—The Haitian Treaty of 1915

7.[1] Treaty Between the United States and the Republic of Haiti

PREAMBLE

The United States and the Republic of Haiti desiring to confirm and strengthen the amity existing between them by the most cordial coöperation in measures for their common advantage;

And the Republic of Haiti desiring to remedy the present condition of its revenues and finances, to maintain the tranquillity of the Re-

[1] *Papers Relating to the Foreign Relations of the United States—1915,* pp. 449–451, Washington, 1924; 67th Congress, 4th Session, Senate Doc., No. 348, *Treaties, Conventions, International Acts, Protocols and Agreements Between the United States and Other Powers 1910-1923,* Vol. III, pp. 2673-2677, Washington, 1923.

public, to carry out plans for the economic development and prosperity of the Republic and its people;

And the United States being in full sympathy with all of these aims and objects and desiring to contribute in all proper ways to their accomplishment;

The United States and the Republic of Haiti have resolved to conclude a Convention with these objects in view, and have appointed for that purpose, Plenipotentiaries,

The President of the United States, Robert Beale Davis, Junior, Chargé d'Affaires of the United States;

And the President of the Republic of Haiti, Louis Borno, Secretary of State for Foreign Affairs and Public Instruction, who, having exhibited to each other their respective powers, which are seen to be full in good and true form, have agreed as follows:

ARTICLE I

The Government of the United States will, by its good offices, aid the Haitian Government in the proper and efficient development of its agricultural, mineral and commercial resources and in the establishment of the finances of Haiti on a firm and solid basis.

ARTICLE II

The President of Haiti shall appoint, upon nomination by the President of the United States, a General Receiver and such aids and employees as may be necessary, who shall collect, receive and apply all customs duties on imports and exports accruing at the several custom houses and ports of entry of the Republic of Haiti.

The President of Haiti shall appoint, upon nomination by the President of the United States, a Financial Adviser, who shall be an officer attached to the Ministry of Finance, to give effect to whose proposals and labors the Minister will lend efficient aid. The Financial Adviser shall devise an adequate system of public accounting, aid in increasing the revenues and adjusting them to the expenses, inquire into the validity of the debts of the Republic, enlighten both Governments with reference to all eventual debts, recommend improved methods of collecting and applying the revenues, and make such other recommendations to the Minister of Finance as may be deemed necessary for the welfare and prosperity of Haiti.

ARTICLE III

The Government of the Republic of Haiti will provide by law or appropriate decrees for the payment of all customs duties to the General Receiver, and will extend to the Receivership, and to the Financial Adviser, all needful aid and full protection in the execution of the powers conferred and duties imposed herein; and the United States on its part will extend like aid and protection.

ARTICLE IV

Upon the appointment of the Financial Adviser, the Government of the Republic of Haiti, in coöperation with the Financial Adviser, shall collate, classify, arrange and make full statement of all the debts of the Republic, the amounts, character, maturity and condition thereof, and the interest accruing and the sinking fund requisite to their final discharge.

ARTICLE V

All sums collected and received by the General Receiver shall be applied, first, to the payment of the salaries and allowances of the General Receiver, his assistants and employees and expenses of the Receivership, including the salary and expenses of the Financial Adviser, which salaries will be determined by previous agreement; second, to the interest and sinking fund of the public debt of the Republic of Haiti; and, third, to the maintenance of the constabulary referred to in Article X, and then the remainder to the Haitian Government for purposes of current expenses.

In making these applications the General Receiver will proceed to pay salaries and allowances monthly and expenses as they arise, and on the first of each calendar month, will set aside in a separate fund the quantum of the collection and receipts of the previous month.

ARTICLE VI

The expenses of the Receivership, including salaries and allowances of the General Receiver, his assistants and employees, and the salary and expenses of the Financial Adviser, shall not exceed five per centum of the collections and receipts from customs duties, unless by agreement by the two Governments.

ARTICLE VII

The General Receiver shall make monthly reports of all collections, receipts and disbursements to the appropriate officer of the Republic of Haiti and to the Department of State of the United States, which reports shall be open to inspection and verification at all times by the appropriate authorities of each of the said Governments.

ARTICLE VIII

The Republic of Haiti shall not increase its public debt except by previous agreement with the President of the United States, and shall not contract any debt or assume any financial obligation unless the ordinary revenues of the Republic available for that purpose, after defraying the expenses of the Government, shall be adequate to pay the interest and provide a sinking fund for the final discharge of such debt.

ARTICLE IX

The Republic of Haiti will not without a previous agreement with the President of the United States, modify the customs duties in a manner to reduce the revenues therefrom; and in order that the revenues of the Republic may be adequate to meet the public debt and the expenses of the Government, to preserve tranquillity and to promote material prosperity, the Republic of Haiti will coöperate with the Financial Adviser in his recommendations for improvement in the methods of collecting and disbursing the revenues and for new sources of needed income.

ARTICLE X

The Haitian Government obligates itself, for the preservation of domestic peace, the security of individual rights and full observance of the provisions of this treaty, to create without delay an efficient constabulary, urban and rural, composed of native Haitians. This constabulary shall be organized and officered by Americans, appointed by the President of Haiti, upon nomination by the President of the United States. The Haitian Government shall clothe these officers with the proper and necessary authority and uphold them in the performance of their functions. These officers will be replaced by Haitians as they, by examination, conducted under direction of a board to be selected by the senior American officer of this constabulary and in the presence of a representative of the Haitian Government, are found to be qualified to assume such duties. The constabulary herein provided for, shall, under the direction of the Haitian Government, have supervision and control of arms and ammunition, military supplies, and traffic therein, throughout the country. The high contracting parties agree that the stipulations in this Article are necessary to prevent factional strife and disturbances.

ARTICLE XI

The Government of Haiti agrees not to surrender any of the territory of the Republic of Haiti by sale, lease, or otherwise, or jurisdiction over such territory, to any foreign government or power, nor to enter into any treaty or contract with any foreign power or powers that will impair or tend to impair the independence of Haiti.

ARTICLE XII

The Haitian Government agrees to execute with the United States a protocol for the settlement, by arbitration or otherwise, of all pending pecuniary claims of foreign corporations, companies, citizens or subjects against Haiti.

ARTICLE XIII

The Republic of Haiti, being desirous to further the development of its natural resources, agrees to undertake and execute such measures

as in the opinion of the high contracting parties may be necessary for the sanitation and public improvement of the Republic, under the supervision and direction of an engineer or engineers, to be appointed by the President of Haiti upon nomination by the President of the United States, and authorized for that purpose by the Government of Haiti.

ARTICLE XIV

The high contracting parties shall have authority to take such steps as may be necessary to insure the complete attainment of any of the objects comprehended in this treaty; and, should the necessity occur, the United States will lend an efficient aid for the preservation of Haitian Independence and the maintenance of a government adequate for the protection of life, property and individual liberty.

ARTICLE XV

The present treaty shall be approved and ratified by the high contracting parties in conformity with their respective laws, and the ratifications thereof shall be exchanged in the City of Washington as soon as may be possible.

ARTICLE XVI

The present treaty shall remain in full force and virtue for the term of ten years, to be counted from the day of exchange of ratifications, and further for another term of ten years if, for specific reasons presented by either of the high contracting parties, the purpose of this treaty has not been fully accomplished.

In faith whereof, the respective Plenipotentiaries have signed the present Convention in duplicate, in the English and French languages, and have thereunto affixed their seals.

Done at Port-au-Prince, Haiti, the 16th day of September in the year of our Lord one thousand nine hundred and fifteen.

ROBERT BEALE DAVIS, JR. [SEAL]
Chargé d'Affaires of the United States
LOUIS BORNO [SEAL]
Secretaire d'Etat des Relations Extérieures et de l'Instruction Publique.

Dollar Diplomacy—The Dominican Loan of 1922

8.[1] March 31, 1922.

MESSRS. LEE, HIGGINSON & COMPANY,
DEAR SIRS:

In connection with the $6,700,000 Dominican Republic Twenty-Year Customs Administration 5½% Sinking Fund Gold Bonds, issued by

[1] EDITOR'S NOTE.—Letter from the American naval officer administering the affairs of the Department of Finance and Commerce for the military government of the Dominican Republic to the New York bond house which floated the loan. Reprinted from a circular distributed by Lee, Higginson & Company.

the Military Government of Santo Domingo in behalf of the Dominican Republic, I submit the following information:

THE DOMINICAN REPUBLIC

The Dominican Republic occupies the eastern part of the Island of Haiti discovered by Columbus in 1492. The Island lies between Cuba and Porto Rico approximately 600 miles from the Coast of Florida and 1,250 miles south of New York on the direct route to the Panama Canal about 800 miles away. The total area of the Dominican Republic is over 19,000 square miles or larger than the combined areas of Vermont and New Hampshire. The population in 1921 was 894,587. The principal products are sugar, cocoa, tobacco and coffee.

The economic dependence of the Republic on the United States is manifest in that the larger part of its commerce is with this country. In the year 1920 trade with the United States included 77% of the imports and 87% of the exports of the Republic. Foreign trade has grown from $9,632,926 in 1905 to $45,199,375 in 1921 and has more than doubled in the past eight years.

RELATIONS WITH THE UNITED STATES GOVERNMENT

In 1907 a convention was entered into between the United States and the Dominican Republic for the purpose of placing the latter's finances on a stable basis. Under this convention a General Receiver of Customs is appointed who shall collect and apply all customs duties until the payment of the 1908 loan due in 1958. The customs revenues have already retired so large an amount of the 1908 loan that the minimum fixed sinking fund on that issue is sufficient to extinguish the 1908 loan not later than 1929.

The issue of these Bonds has received the approval of the United States Government required by the terms of the American-Dominican Convention of 1907 and the Secretary of State consents to the inclusion in the Bonds of the following statement:

"The acceptance and validation of this bond issue by any government of the Dominican Republic as a legal, binding and irrevocable obligation of the Dominican Republic is hereby guaranteed by the Military Government of Santo Domingo, and, with the consent of the United States Government, the General Receiver of Dominican Customs, appointed under the Convention of 1907, will, during the life of that Convention, make such payments as are necessary for the service of the new loan from the revenues accruing to the Dominican Government. The Military Government further agrees that after the expiration of the Convention of 1907, such customs revenues shall be collected and applied by an official appointed by the President of the United States in the same manner as the present General Receiver of Customs, and that the loan now authorized shall have a first lien upon such customs revenues until all the bonds thereof are paid in full." The authorized loan herein referred to is a loan of $10,000,000 of which this $6,700,000 is a part.

The affairs of the Republic having been administered by the Military Government of Santo Domingo since November 29, 1916, the above provision has been embodied in the contract with that Government for the present loan and will be confirmed in an executive order of Rear Admiral Samuel S. Robison, U. S. Navy, Military Governor of Santo Domingo.

DEBT

On November 30, 1916, total funded debt of the Republic was $20,812,691. Total funded debt based on January 1, 1922 statement and after giving effect to this financing will be:

5% Loan of 1908.....	$20,000,000	
Less redeemed to date.....	$12,466,000	$7,534,000
5% Loan of 1918.....	$4,161,300	
Less redeemed to date.....	$2,534,300	1,627,000
5½% Loan of 1922 (this issue)..		6,700,000
		$15,861,000

During the period from November 30, 1916 to January 1, 1922 but after giving effect to this financing, the Republic reduced its debt by over $4,950,000. In addition, the Republic spent during the same period, under the supervision of American engineers, $8,145,885 for constructing roads, port improvements, schools and other public buildings, increasing custom house, warehouse and wharf facilities at the various ports. [That] All these general improvements have greatly aided business and the country's prosperity in recent years is reflected in the fact that the 1908 loan due in 1958 and the 1918 loan due in 1938 will, by the operation of sinking funds, be retired out of customs revenues not later than 1929.

DESCRIPTION OF THIS LOAN

Twenty-Year Customs Administration 5½% Sinking Fund Gold Bonds, to the amount of $6,700,000 are now to be issued. Additional Bonds of this Loan to the amount of $3,300,000 may be issued, but only after previous agreement with the United States Government and the Government of the Dominican Republic. The proceeds of the present issue will be used for the following purposes: the retirement of a portion of the external indebtedness amounting to about $2,850,000, all internal indebtedness amounting to $750,000; for public works and highways and other purposes.

The Bonds will be dated March 1, 1922, and will be repayable at 101 and interest at maturity, March 1, 1942. Interest will be payable March 1 and September 1. Bonds will be issued in coupon form in denominations of $1,000 and $500, registerable as to principal, The

Farmers Loan and Trust Company, New York, Registrar. They will not be callable before March 1, 1931. Thereafter they will be callable as a whole or in part at 101 and accrued interest. Principal, sinking fund, premium and interest will be payable in New York, Boston and Chicago at the offices of Lee, Higginson & Company, fiscal agents for the service of this loan, in United States gold coin of the present standard of weight and fineness, exempt from Dominican taxes present or future.

SINKING FUND

The sinking fund, the first payment for which shall be made April 1, 1930, is sufficient to retire the entire issue by maturity at 101. Under the provisions of this Sinking Fund, Bonds will be purchased each year in the open market at or below 101, beginning April 1, 1930, or if not so purchasable, called by lot at 101, each year beginning March 1, 1931, so that at least $\frac{1}{12}$ of the issue shall be retired each year.

SECURITY

The Bonds will be secured by a specific charge upon the customs revenues of the Dominican Republic. Prior charges against the customs revenues consist of the necessary administration expenses of the General Receiver of Customs, and the interest and fixed amortization charges of the 5% External Loans of 1908 and 1918, both of which will have been retired not later than 1929 when this loan will have a first charge on customs revenues subject only to the cost of collection.

The following agreement will be included in the Bonds:

"The Military Government of Santo Domingo engages that during the terms of this loan, no future bonds of the Republic will be issued, secured by customs revenues, other than the total authorized amount of Bonds of this issue unless the annual average customs revenues for the five years immediately preceding amount to at least $1\frac{1}{2}$ times total charges on all obligations secured by customs revenues, including charges of any new loan, and that the present customs tariff will not be changed during the life of this loan without previous agreement between the Dominican Government and the Government of the United States".

REVENUES

Customs revenues, on which these bonds are a specific charge, totaled, from August 1, 1907 (the beginning of the first Convention year) to December 31, 1921, over $56,728,000, an annual average of $3,912,000. For the six years ended December 31, 1921 customs revenues averaged over $4,500,000 while total interest and fixed sinking fund requirements were, prior to this financing, at the rate of $2,303,000 per annum; upon completion of this financing they will be only $1,857,500 per annum. In other words customs revenues, on which these

bonds are a direct lien, averaged over twice these charges for 14½ years and practically two and one-half times for the past six years.

In the past fifteen years total revenues have been sufficient not only to pay promptly interest charges and running expenses of the Government but also to retire by sinking fund operations a large part of the 5% Loans of 1908 and 1918 and spend considerable sums on public improvements.

Total revenues for the six years ended December 31, 1921, averaged annually $6,902,055, while expenditures, not including public improvements, averaged annually $6,320,494.

RECORD OF TRADE IN THE PAST FIFTEEN YEARS

The comparative growth of trade and the favorable trade balance of the Dominican Republic are indicated by the following figures:

	Aggregate Trade	Value Imported	Value Exported	Excess of Exports
1907.....	$12,577,317	$4,948,961	$7,628,356	$2,679,395
1911.....	17,945,208	6,949,662	10,995,546	4,045,884
1916.....	33,192,303	11,664,430	21,527,873	9,863,443
1921.....	45,199,375	24,585,327	20,614,048	*3,971,279

* Excess of imports.

Very truly yours,

D. W. Rose,
Lieutenant Commander, S. C., U. S. Navy, Officer Administering the Affairs of the Department of Finance and Commerce for the Military Government.

Bolivian Loan of 1922—Security Offered to American Bankers

9.[1] Article Fourth

SECURITY

Section 1. In order that the Loan represented by the Bonds to be issued as aforesaid shall be secured by a first lien or pledge and charge upon all of the funds, revenues and taxes hereinafter mentioned, the Republic shall immediately

(a) Retire and cancel all "External Bonds of the Republic of Bolivia of 1922" at present outstanding by exchanging therefor Bonds of this issue and also cause to be cancelled and physically destroyed $4,000,000 par value of said Bonds heretofore issued

[1] Reprinted in Margaret Alexander Marsh, *The Bankers in Bolivia*, pp. 148–157, New York, 1928. In 1922 a $33,000,000 loan at 8% for twenty-five years was floated in the United States by Stifel-Nicolaus of St. Louis and their associates, the Equitable Trust Company and Spencer Trask & Company of New York. This selection well illustrates the extent to which an independent nation may pledge itself to foreign bankers.

but not delivered and at present deposited with the Guaranty Trust Company of New York, thereby releasing from lien the funds, revenues and taxes which at present secure those Bonds;

(b) Purchase and/or call for redemption all outstanding Bonds of the Republic (hereinafter called "Bonds of the Morgan Loan") issued under contract dated December 30, 1908 between the Republic and J. P. Morgan & Company of New York, and cancel all Bonds of that loan, thereby releasing from lien the funds, revenues and taxes which at present secure the same. To assure the retirement of said Bonds of the Morgan Loan, the Republic shall deposit with the Trustee at the time of the authentication and delivery of the Bonds mentioned in subdivision (a) of Section 1 of Article Eighth hereof £284,600 par value of said Morgan Bonds which are to be surrendered to J. P. Morgan & Company, as hereinafter in Section 4 of Article Eighth provided, and pending such surrender are to be held by the Trustee as part of the security hereunder.

(c) Purchase and/or call for redemption all outstanding Import Customs Notes of 1915, Export Customs Notes of 1920 and Customs Notes of 1921, thereby terminating the right of the holders of those notes to tender the same in payment of customs duties and releasing from lien the funds, revenues and taxes which at present secures those Notes.

(d) Pay all obligations owing by the Republic in local banks at La Paz which are secured by the Republic's shares of stock of Banco de la Nación Boliviana, thereby releasing from lien the shares which at present secure such obligations.

Section 2. Subject to the liens and charges at present existing in favor of said "External Bonds of the Republic of Bolivia of 1922" and of said bonds of the Morgan Loan and of said Customs Notes and of said obligations to local banks at La Paz, (all of which liens and charges the Republic shall forthwith discharge as aforesaid) the Republic hereby affects and encumbers with a first lien or pledge and charge in favor of the Trustee the following shares of stock, funds, revenues and taxes as security for the full payment of the principal, premium and interest of the Bonds, and of all other expenses and amounts required for or incident to this Contract or to the service of the Loan, to wit:

(a) All of the shares, not less than 114,000, of the Banco de la Nación Boliviana belonging to the Republic and which the Republic represents are sufficient at present to control said Bank. For the purpose of constituting a pledge of said shares, the Republic shall deliver to the Trustee hereunder as hereinafter provided either bearer certificates or certificates of stock duly endorsed in blank representing all of the shares referred to and also the certificate representing said shares now in banks at La

Paz as security for the bank loans above-mentioned. In case the capital stock of the Banco de la Nación Boliviana should be increased at any time during the life of this Loan, the Republic shall acquire such proportion of the additional shares as may be necessary to maintain the said control; the shares so acquired shall immediately thereafter be pledged as security for this Loan; and bearer certificates or certificates of stock, duly endorsed in blank, representing such additional shares, shall immediately thereafter be delivered to the Trustee hereunder;

(b) All revenues representing dividends payable upon said shares during the life of this Loan;

(c) The tax upon mining claims or concessions (patentes mineras);

(d) The revenues received by the Republic from alcohol monopoly (monopolio de alcohol);

(e) 90% of revenues received by the Republic from the tobacco monopoly (monopolio de tabacos);

(f) The tax on corporations other than mining and banking (impuesto sobre dividendos de sociedades anonimas no mineras);

(g) The tax upon the net income of banks (impuesto sobre utilidades bancarias);

(h) The tax on interest on mortgage cedulas (impuesto sobre la renta de letras hipotecarias);

(i) The tax on the net profits of mining companies (impuesto sobre utilidad de empresas mineras);

(j) All import duties (derechos de importaciones);

(k) Surcharge on import duties (recargo derechos de importaciones);

(l) All export duties (derechos de exportaciones).

If and when the $4,000,000 of bonds referred to in paragraph (b) of section 2 of Article Eighth below, or any part thereof shall be authenticated and delivered, all funds, revenues and taxes now or hereafter allocated by special laws to the construction of the Potosí-Sucre Railroad, shall thereupon become pledged as further security for all of the bonds of the present issue, without the necessity of further instruments or of any action on the part of the Republic.

Section 3. The lien upon the dividends, funds, revenues and taxes referred to in the preceding section shall be considered as a pledge of said dividends, funds, revenues and taxes and any precept or provisions of law requiring that such pledge remain in the possession of the pledgee or of a third party are hereby expressly waived, it being agreed that such pledge shall attach to said dividends, funds, revenues and taxes from the moment that the same shall be collected by the Republic. . . .

Section 4. As further security hereunder, the Republic hereby constitutes first mortgages and liens upon all the properties and

earnings of the railroads constructed and to be constructed from Villazon to Atocha and from Potosí to Sucre including their franchises, concessions, equipment and other appurtenances, and upon the net income of said railroads after deducting the expenses of operation.

The Republic hereby declares that said mortgages and liens are constituted by virtue of the present Contract, and that no record thereof is necessary and that no further mortgages or other instruments are required to be executed or recorded in connection therewith. The Republic furthermore declares that said mortgages include the railroads and all their lands, servitudes, buildings, rails, bridges, cars, locomotives, telegraph and telephone lines, equipment and all other things of every kind and description in any manner relating to the same, and all other properties and appurtenances belonging to said railroads or for use in connection therewith, whether constructed and/or acquired or to be constructed and/or acquired, and as the same shall be constructed and/or acquired without the necessity of the execution or recording of any other instruments.

In case said rolling stock, equipment or any other things belonging to or used in connection with said railroads, or either of them, should be held or considered to be personal property not subject to mortgage, there is hereby constituted thereon a special lien and any provisions of law in conflict therewith are hereby waived, and it is further agreed that in the enforcement and execution of such special lien there shall be observed the procedure laid down in the Code of Civil Procedure of the Republic of Bolivia with reference to the foreclosure of mortgages upon real estate.

In case the said railroads, or either of them, should be sold as a result of the foreclosure of the mortgage or the enforcement of said lien, the purchaser at such sale, and his heirs, personal representatives, successors and assigns, shall have, and the Republic hereby grants to him and them, the right to operate the said railroad for a period of 99 years from the date of such purchase, with all the rights and privileges accorded by and subject to the provisions of the General Law of Railroads of the Republic of Bolivia of October 3, 1910, and its Regulations, and any laws amendatory thereof, approved prior to the date of this contract. In that case, the purchaser or any company that may be organized by the purchaser for the operation of said railroads, or either of them, as also the entire business and properties thereof, shall, in respect to said railroads be free from taxes and imposts of all kinds.

Section 5. If, during any fiscal year, the proceeds derived from the pledged dividends, funds, taxes and revenues should be less than one and one-half times the amount required for the annual service of the Loan, the Republic shall immediately pledge as further security for said Loan such additional taxes or revenues other than all present or future taxes on petroleum and on petroleum claims and concessions

as may be approved by the Bankers to an amount sufficient upon the basis of the collection of such additional taxes or revenues during said fiscal year to increase the proceeds of all pledged dividends, funds, taxes and revenues to the proportion stated. If, during any fiscal year subsequent to the pledging of such additional taxes and revenues, all of the pledged dividends, funds, taxes and revenues (including such additional taxes and revenues), should exceed three times the amount required for the annual service of the Loan, said additional taxes and revenues shall, at the request of the Republic, be released by the Trustee from said pledge. The sums required for the above purposes shall be calculated upon the basis of the average rate of exchange in La Paz on New York for dollar sight drafts for the twelve months immediately preceding, or the rate current at the time of such additional pledge or request for release, whichever shall be more favorable to the dollar.

SECTION 6. As further security hereunder, the Republic agrees that so long as any Bonds remain unpaid or unprovided for, the liens and charges herein created upon the revenues of the Republic shall have priority, whether as to capital, interest or redemption of said Bonds, over all future charges or liens created on the said revenues; and that no lien or charge shall be created upon such revenues which shall take precedence of or which shall be on a parity with the said Bonds, or which in any manner whatsoever shall decrease, alienate, affect, impair or prejudice the security hereunder; and the Government will not consent to any act which in any manner whatsoever shall diminish or impair the security provided for by this contract.

SECTION 7. To further secure the Loan and to protect the credit of the Republic, the Republic shall not, prior to December 5, 1924, contract any external loan without the previous approval of the Minister of Finance of the Republic and of the Bankers. After that date and so long as any Bonds of the present Loan shall remain outstanding, the Republic shall not contract any further external loan unless

(a) The taxes and revenues pledged for the service of the present Loan shall, for a period of two years immediately preceding such new Loan, have annually produced at least one and one-half times the amount required for the service of the present Loan; and

(b) During each of said two years, the Republic shall have raised sufficient revenues to meet all of its ordinary general expenses, exclusive of capital investment, without borrowing therefor or without selling capital assets.

The sums required for the purpose mentioned in (a) above shall be calculated upon the basis of the average rate of exchange at La Paz on New York for dollar sight drafts for the two years immediately preceding, or the current rate at the time, whichever shall be more favorable to the dollar.

A statement in writing addressed to the Bankers, signed by the Minister of Finance of the Republic and countersigned by the Permanent Fiscal Commission hereinafter mentioned shall be conclusive, and the sole evidence of compliance with the conditions set forth in subdivisions (a) and (b) above.

Section 8. The dividends, funds, revenues, taxes and property hereinbefore mentioned are mortgaged and pledged as security for the entire indebtedness and for all the Bonds secured hereby. The Trustee may, in its discretion, enforce any of its rights, remedies and powers against all such property and revenues simultaneously or against any of them successively, until all of said Bonds shall be paid in full. No remedy, right or power conferred upon or reserved to the Trustee is intended to be exclusive of any other remedy, right or power, but each and every such remedy, right or power shall be cumulative and shall be in addition to every other remedy, right, power or action now or hereafter conferred upon it by law. The delivery of the Bonds shall be conclusive upon the Republic as receipt of value therefor, and the Republic will not plead in any proceeding or action failure of consideration for their issuance and delivery.

Article Fifth

permanent fiscal commission

Section 1. So long as any Bonds remain outstanding, beginning not later than August 1, 1922, the collection of all taxes, revenues and income of the Nation shall be supervised and fiscalized by the Permanent Fiscal Commission, the creation of which has been authorized by law No. .... of March 27, 1922.

The President of the Republic shall appoint the three Commissioners; of these, two to be appointed upon recommendation of the Bankers. At any time, at the request of the Bankers or by agreement between the President and the Bankers, the President shall remove either or both of the Commissioners recommended by them, and any vacancy or vacancies thus created or otherwise occurring, shall be filled in the same manner as in the case of the original appointments.

Section 2. The Permanent Fiscal Commission shall exercise all the other powers conferred upon it by the law of March 27, 1922, and by the Regulation of that law to be issued by the Executive. For that purpose it shall select such assistants and employees as it shall consider necessary, provided that the total annual expenses of the Commission, excluding the compensation of the Commissioners, their allowance for living expenses and their travelling expenses, shall not exceed one-half of one per cent (½%) of the amounts collected, or such other reasonable limit as may from time to time be agreed upon by the Minister of Finance and the Bankers. The compensation of the Commissioners and their allowances for living expenses shall be

agreed upon between the Republic and the Bankers and may be changed from time to time by agreement between the Minister of Finance and the Bankers. The total cost of the Commission shall constitute a part of the service of the loan and shall be included in the amounts to be deposited monthly with the Banco de la Nación Boliviana as provided in Section 2, Article Sixth of this Contract.

Section 3. The Commission shall make its own rules which shall be approved by the President; it shall act by majority vote; and shall elect as its Chairman and Chief Executive one of the two Commissioners who shall have been recommended by the Bankers.

Section 4. In addition to its other duties, the Commission shall make a thorough examination of and report upon the finances and resources of the Republic, and the methods of collecting and disposing of the national revenues. Such reports, with the recommendations of the Commission, shall be presented to the President of the Republic and to the Bankers.

Section 5. So long as any Bonds of this Loan remain outstanding, the Chairman of the Commission shall be elected a member of the Board of Directors of the Banco de la Nación Boliviana, and the Republic shall take such action as may be necessary to secure his election and continuance in office as such.

The United States in Nicaragua as Seen by an Anti-Imperialist

10.[1] Mr. Borah. Mr. President, I am interested in the particular matter covered by the amendment now being considered because I am interested in the policy which seems to be growing up touching our relationship with Central American countries and the islands near our coast—in other words, our Latin American policy.

We went to Nicaragua in 1910, I believe. In my judgment we never had any sufficient reason for going. Nevertheless, we sent our marines there, landed them, took possession of the country, marched to the capital, killed some 200 Nicaraguans, and placed in control, as the nominal President of Nicaragua, a clerk or employee of a corporation of Pittsburgh. We maintained him there for a number of years and he could not have remained in the capital of Nicaragua 48 hours, as seems to be conceded by everyone, without the presence of the American marines, who kept him there. He was a dictator of the Nicaraguan people, and made dictator by our Navy, under orders from Washington.

During the time that our created—so-called—President was President of Nicaragua there was a treaty with Nicaragua proposed. That treaty went before the Committee on Foreign Relations of the Senate, and was there defeated by the solid vote of the Democrats and one

[1] *Congressional Record—Proceedings and Debates of the 2nd Session of the 67th Congress*, vol. lxii, part 9, pp. 8941–8942.

Republican vote. That vote I had the honor to cast. The treaty was again submitted after a change of administration, practically in the same terms found in the original treaty, and in this instance it was reported favorably by the committee. The vote was a little embarrassed by reason of the vote which had been taken theretofore. The Democrats, with one or two exceptions, supported the administration and Republicans supported the previous administration. At any rate, the treaty was favorably reported, was considered in the Senate, and finally ratified. I made a motion to consider it in open session, but the motion was defeated. It was considered in secret, naturally.

The treaty which we made with Nicaragua did not in any sense represent the expression of view or wishes of the Nicaraguan people. So far as Nicaragua was concerned, it was made by a government which we set up, which by force we maintained, and which did not represent the views of the Nicaraguan people at any time. We made an important treaty with a helpless people, a people under our military domination.

The American admiral who had charge of the affairs in Nicaragua stated in the hearings that if the Nicaragua people were permitted to express themselves, 80 per cent of them, in his opinion, would be opposed to the government as it then existed and would be opposed to the treaty as submitted.

I have never regarded the Nicaraguan treaty as binding upon the Nicaraguan people. We were making a treaty with ourselves. We were making a treaty with a government which was our puppet. We were making a treaty with a government which represented us at the other end of the treaty-making negotiations. It is one of the most indefensible transactions of which I have knowledge in international affairs. But I am not to-day going into the Nicaraguan affair at length, except to suggest that the views which I entertain in regard to this matter are not lately formed, have not been lately considered by me for the first time.

About 1915 we went to Haiti, largely under the same circumstances and conditions under which we went to Nicaragua. I shall not to-day discuss at any length why we went to Haiti. Suffice it to say that, in my judgment, there was no sufficient reason for our invasion of Haiti, and suffice it to say, further, that if the Haitian people had been a much stronger people, a more powerful people, a people with a navy and an army, we would not have gone to Haiti even if the same reasons had existed which did exist. We have some two or three policies with reference to our foreign affairs, and those policies are adjusted to the size and strength of the people. In my humble opinion, the policy which prevailed with reference to the Haitian people was by reason of the fact, in large measure, that they were helpless to resist the invasion and the encroachment of the American marines or the American Navy.

It was said that we went there for the purpose of restoring law

and order. If we had gone there for that purpose, we never would have done the things which we did after we arrived there. The things which we did indicate that we were not there temporarily for the purpose of restoring law and order, but that we were there for a more permanent and a more abiding reason.

No American citizen had been killed in Haiti; no American property had been destroyed; no offense had been committed against our people. The Haitian people were at peace with all the world. They were at peace with the United States, and they had committed no outrages and no wrongs against the American citizens who may have been in Haiti, nor had they confiscated or destroyed any property belonging to them.

There were disturbances in Haiti and always have been. They were, in my opinion, no different, either in moment, extent, or seriousness, than had existed there many different times during the 100 years in which Haiti has been a Republic.

Mr. McCormick. Mr. President, will the Senator yield for a question?

Mr. Borah. Certainly.

Mr. McCormick. There had always been almost similar occurrences in Cuba, had there not, before intervention there in 1898?

Mr. Borah. Yes. The relevancy of the question I do not see, and I would be glad to have the Senator explain.

Mr. McCormick. It seems to me that it is at least arguable that there is analogy between intervention on the part of the United States to establish order and peace in Cuba and to do as much in Haiti.

Mr. Borah. I do not think the analogy exists in any particular.

We talk, Mr. President, about the sacredness of life and the security of property in Haiti. Property was just as secure and life just as sacred in Haiti when we entered as it is in some parts of this country, even in some of our large cities. They were not as efficient and capable of self-government as we claim to be, and yet I venture to say that compared in population the sacredness of human life was just as thoroughly observed in that island during the months in which we were entering and invading their territory as it has been for months and months in some of the great cities of the United States. When you examine the record of robberies and murders in great cities, the lynchings and burnings in this country, and compare them with lawlessness in Haiti you will find little excuse for our going to Haiti.

Mr. President, in my judgment, we did not enter that island by reason of the fact of the disturbances there. For more than 40 years there have been powerful influences at work in this country to induce the United States to become active in the affairs of Haiti. While I do not charge that it has its conscious effect upon the State Department or our Government, it was so presented to the Government that the Government undoubtedly yielded to those influences. Let us follow up, therefore, what we did after we arrived there, and see if we can not ascertain why we went and why we are staying. Remember,

Mr. President, that we have been there now nearly eight years. We have given them in that time nothing but a military form of government. We have not set up or attempted to set up anything like a civil government. While nominally they retain their President, he is in every sense the representative of the military power of the United States, and the only thing that we offer the Haitian people after seven or eight years occupancy is a military form of government—the most undesirable, the most intolerable, the most brutal, the most arbitrary and cruel form of government that can be placed over any dependent people.

One of the first things we discover when we come to investigate the affairs in Haiti is the fact that they had in their constitution a provision which prevented foreigners from owning or acquiring land in Haiti. This was written into the original charter in 1804. They believed it necessary to their defense. They realized that they had an island the soil of which was exceedingly fertile, and that if foreigners were permitted to come in there and acquire lands and exploit their natural resources, they would not be able to stand against that kind of encroachment, that kind of peaceful penetration, and that ultimately, through the acquisition of their property, their natural resources, and their land, the foreigner would come to dominate the situation in Haiti. One of the first things which we did was to force out of the constitution that provision. That could not have been connected with the proposition of temporary occupation. That never could have been any part of the program for the mere restoration of law and order in Haiti. That had to do with laying the foundation for the permanent occupancy of Haiti.

I am informed, and I think reliably informed, because one of the parties informing me is the owner of property in Haiti, that since that provision of the constitution was changed large acreages have been gathered up by citizens of the United States and some 200,000 acres have been acquired by different companies or corporations, and that this acreage is now passing into the hands of those other than citizens of Haiti. Of course, Mr. President, if that is true, then what was called temporary occupancy of Haiti will necessarily become a permanent occupancy. Having forced out of the constitution their protection against foreign purchasers, will we ever withdraw from the island and leave the foreign purchaser to be governed by the Haitian people? The influence which is now going there for the purpose of exploiting those islands will have a right to say "We purchased after you had changed the constitution and under the implied terms, if not the express terms, that we would be protected in our holdings in Haiti." We are practicing peaceful penetration. Having forced a change in their constitution, we are taking advantage of the change to seize the lands, and when the time comes to get out we will be asked by our own people to stay. Having invested therein, because that was what

the changing of the constitution meant, we will not leave them to the mercy of the people whom they have exploited.

It indicates, in other words, that although there might have been the announced purpose of temporary occupation, the thing which we have been doing indicates a permanent occupation.

How was this constitution adopted by Haiti? In no sense was it ever the expression of the Haitian people. The story of the forcing upon those people of this constitution is one which cannot be defended. I have never seen any defense of it. In the discussion of the Haitian question it is avoided. It is 110,000,000 people with a great Army and a great Navy proceeding against 3,000,000 people without an army or a navy and dictating to them a change in their fundamental law detrimental to their interests.

A Senate Committee's Summary of Failure and Achievement in Haiti and the Dominican Republic

A Summary of Failure and Achievement

11.[1] It has been necessary to interrupt the general consideration of the American occupation in Haiti, in order to review at length the incidents of the outbreak of 1918 and 1919. The committee is not prepared to say that the rising of Caco bands in the section of the country, where for a generation revolution habitually originated, was encouraged by the corvee. But it is impossible not to condemn the blunder committed when, under the corvee, laborers were carried beyond their vicinage to work under guard in strange surroundings. This was an error of commission like those of omission arising from failure to develop a definite and constructive policy under the treaty or to centralize in some degree responsibility for the conduct of American officers and officials serving in Haiti under the Government of Haiti or that of the United States. The blunder arose, too, from the failure of the departments in Washington to appreciate the importance of selecting for service in Haiti, whether in civil or military capacities, men who were sympathetic to the Haitians and able to maintain cordial personal and official relations with them.

It may be set down to the credit of the American occupation and the treaty officials that the Haitian cities, once foul and insanitary, are now clean, with well-kept and well-lighted streets. The greater part of an arterial highway system opening up the heart of the country has been built. The currency, which once violently fluctuated under the manipulations of European merchants, has been stabilized, to the

[1] *Inquiry into Occupation and Administration of Haiti and the Dominican Republic, 67th Cong., 2nd Sess., Senate Report No. 794,* pp. 23–24. Washington, 1921.

Editor's Note.—During 1920 and 1921 the criticism of American administration of Haiti and Santo Domingo was so incessant and caustic that a Select Committee of the Senate, headed by Medill McCormick of Illinois, was appointed to investigate the charges both in the United States and in the subjected island. A voluminous report containing much conflicting testimony was the result.

great advantage of the Haitian peasant. Arrears of amortization as well as of interest on the public debt have been paid, as also are regularly paid the salaries of the smallest officials. The steamship communications between Haiti and the United States are greatly improved. Trade and revenues are increasing. The revision of the customs and internal taxes, so important to the prosperity of Haiti and especially of its poorest classes, awaits the funding of the debt by a new loan. There is peace and security of property and person throughout the Republic. The peasant in his hovel or on the road to market is safe from molestation by brigand or official authority. A force of 2,500 gendarmes, insufficiently trained to cope with the Caco outbreak in 1918, is now admirably disciplined. As its morale has improved, the force has become at once more considerate and more efficient in the discharge of its duties. It is noteworthy that an increasing proportion of the commissioned officers are native Haitians, those promoted from the ranks to be supplemented by others, graduates of the newly established cadet school. In brief, under the treaty, the peace of the Republic, the solvency of its Government, and the security of its people have been established for the first time in many years.

The White Man's Burden

Sanitation

12.[1] Most of this work was in the larger towns, though before I was relieved practically every small village had been cleaned up and was being kept in a sanitary condition.

Streets and vacant lots were cleaned up and kept clean.

Streets were drained and, where required, paved, repaved, or built up so as not to be quagmires in the wet season.

Drainage was installed where necessary and mosquito-breeding places eradicated or materially reduced.

Sanitary toilets were built to eliminate the prevailing practice, among the poor especially, of using the streets or vacant lots for that purpose.

Waterworks were overhauled, distributing systems repaired and increased so that full use could be made of the available supplies of water; in some cases the conditions before we took charge were so bad that sufficient water for drinking and cooking purposes was not available.

Market places or markets were cleaned up and kept clean, and when market buildings existed these were repaired.

In a number of cases field incinerators were built to dispose of garbage.

[1] *Inquiry into the Occupation and Administration of Haiti and Santo Domingo —Hearings Before a Select Committee on Haiti and Santo Domingo, United States Senate, Sixty-Seventh Cong., First and Second Sess., Pursuant to Senate Resolution 112.* Vol. ii, pp. 1749-1752. Washington, 1921.

Roads

The road work was first started from the larger towns, each town working toward its neighbor. The policy adopted was to build good country roads between the principal towns so as to be able eventually to connect Port au Prince with the north of Haiti, to be followed by connecting roads to the south coast; the roads were properly drained and crowned, and where possible, top dressed, in such a manner, as to stand the probable traffic, of such width and following lines as would enable it to be converted into a well-metaled highway when funds for such work became available.

Feeders to the main highways from towns off the main routes were constructed as funds and men were available.

No funds were available for bridges, but a few existing ones were repaired and fords cleaned out and made passable in safety, except in cases of floods, which were by no means rare.

Some dikes were built across marshes which for many years had been impassable during much of the wet season, and in a few cases dikes built years before to keep rivers within their beds were repaired and extended.

About five weeks after I left Haiti the main road from Leogane to Port au Prince, to Gonaieves, to Plaisance, to Limbe, to Cape Haitien, to Le Trou, to Fort Liberty, and to Ouanaminth on the Santo Dominican border was finished, and the President of Haiti made the trip to the border in automobile, a distance of approximately 225 miles, a trip which ordinarily had taken four to five days' hard riding to accomplish. In all, we had constructed approximately 350 miles of good wagon roads and had repaired many miles of minor roads and trails.

Where formerly at many times during the year animals could not pass, or, if they could, with only a small load, market produce could be brought into the towns without delay.

As has been stated before, when we arrived at Port au Prince many of its people were actually suffering for lack of food, but before I left the normal number of animals entering Port au Prince from the plain —i.e., over one road—on Saturday, the principal market day, was between seven and eight thousand.

This combined with the vast increase in cultivation of the land meant an enormous prosperity to the people of the country districts, enabled lack of imported foodstuffs due to the war to be overcome, and allowed what had never been done before—a considerable export trade in foodstuffs to be built up with Cuba and the Isthmian Canal Zone.

The country people, and particularly the country women, were almost invariably our friends and thoroughly contented with our presence and administration of affairs. On a number of occasions I was told by priests and others who had lived many years in Haiti

that it was no uncommon thing for the market women in their prayers to thank God for the presence of the Americans.

Telegraph and Telephone Lines

The old lines were repaired and new lines built, first for military reasons and later to aid in improving communications between all parts of the country. While in many cases our work was of a primitive nature (we frequently had to use beer bottles for insulators), and at first there were numerous cases of destruction or cutting of lines; eventually we could communicate by telephone with practically every town and gendarmerie post in Haiti.

Post Offices

The postal system when we arrived was such that not even a Haitian thought of intrusting valuable or confidential matter to the mail. As the system remained in Haitian hands, we were able to do little to improve the service; though through the gendarmerie taking over the transportation of mails for the postal department, the mails were safe while en route between offices, and were delivered without the former delays.

Upon my recommendation the President of Haiti asked for a postal expert from the United States to reorganize the system. This expert arrived shortly before I left, and was having considerable difficulty in getting any results, as the Haitian postal authorities resented his presence.

Schools

A very careful investigation was made of school conditions. Numerous teachers were found who did not attend the classes they were supposed to teach. The payment of these was stopped. The pay for teachers was far too small to enable even a Haitian to live in decency, and consequently most of the teachers were frankly incompetent or held the place as a sinecure, performing no duty for the pay they received. In other cases it was found that buildings were rented for school purposes but that school was never held, and in these cases the payment of the rent was stopped.

We gave such assistance and support as we could to those schools where actual instruction was being carried on, and their conditions were really materially improved.

After the investigations were completed recommendations were made to the President of Haiti, who asked me to endeavor to obtain a skilled educator from the United States to take charge, under the minister of public instruction, of building up a school system in Haiti. A man of the type required, speaking French and Creole and used to dealing with the colored race, was found in Louisiana, and prior to my leaving Haiti he had entered upon the duties of his office. His presence was also resented by the Haitian officials of that department, and

it was only through personal representations to the President that the minister for public instruction would aid him in his work.

Another result of our investigations was to find that there was really much interest in schools and that many of the country people would be glad to have their children attend schools. The schools run by the priests and the sisters were well attended, the children usually alert and quick to learn, but these schools were few and beyond the reach of the vast majority of the children.

In order to stimulate interest in schools I had four model schoolhouses constructed in the four sections of Haiti, their actual sites being carefully selected on main traveled roads where the largest possible number of passersby would see the work going on. After those were started applications came in for us to build others, but as funds were scarce I started the plan of providing those communities where a schoolhouse was desired with such material as could not be produced locally, with the understanding that the communities themselves would furnish all local material and labor involved in its construction. As I remember it, about 20 schools had been started under this plan before I left Haiti.

A former manual-training school in Port au Prince was rehabilitated, and when I left it had between two and three hundred students, either orphans or the children of the very poor, and they were turning out really good work, the children living in the school building itself.

Agriculture

From the start we did everything we could to stimulate interest in agriculture. As the country was cleared of bandits people returned to their previous homes and started planting; men who had had enough of life in the hills and came in and promised to obey the law were given work to enable them to earn enough to start clearing and planting.

Early in 1917 it became apparent that Haiti would not be able to import foodstuffs as formerly, so a systematic campaign was started and carried out to secure as large an acreage of foodstuffs as possible, and the increase was enormous. In this we had material aid from the President and from many Haitians.

An agricultural school was started near Port au Prince in connection with an experimental farm that had been started by my predecessor, and later, through the gendarmerie, a number of experimental farms were started in other localities.

In conference with the President it was decided to ask for agricultural experts from the United States Department of Agriculture to make a comprehensive survey of the agricultural possibilities of Haiti. Our Government furnished the experts as requested.

The increase in planting increased enormously the amount of foodstuffs raised and enabled considerable amounts to be exported after the needs of Haiti were filled.

The country people generally enjoyed a prosperity which, I venture to say, they had never enjoyed before, notwithstanding the fact that it had been impossible to make any improvements in the land or other laws.

The Gendarmerie

No better comparison between the old and the new Haiti could be made than to place side by side a company of gendarmes and a company of the former Haitian Army. Mistakes were made, as was natural, and untrustworthy men were enlisted. Their improvement at times appeared slow, and on some occasions detachments without their white leaders to steady them fell down entirely, but all the same their progress and improvement were steady and generally they made more efficient and loyal officers of the law than could possibly have been expected when the material at hand was considered.

Owing to the generally corrupt practices in vogue in all the communes, particularly in the rural townships, I recommended to the President that the white officers of the gendarmerie be charged by means of a presidential decree with the supervision of the affairs of the communes. This was done, and while the taxes were reduced to what the laws allowed and always standardized, communal collections were increased anywhere from 500 to 1,000 per cent, with the result that the communes not only became self-supporting, but were enormously improved in their sanitary and physical conditions. This change made many friends for the American occupation, but as it stopped an enormous amount of graft on the part of the Haitian communal officials, it also increased the resentment of the small Haitian politician against us.

Prisons

The prisons, which had been almost the worst institutions in Haiti, were overhauled or rebuilt or abandoned, sanitary methods applied, prisoners properly fed, shower baths installed when water was available, medical treatment given to those requiring it, and generally turned from pest holes into thoroughly sanitary institutions. Prison practices were reformed, system was introduced, reduction of term of confinement and sometimes paroles granted for good behavior, separate sections for female prisoners provided, manual training instituted in the larger prisons so that when prisoners were discharged they could be useful members of their communities.

Hospitals

The then existing hospitals were thoroughly overhauled, new construction undertaken, many modern appliances installed, patients properly cared for and fed, so that in the larger cities of Haiti there were really well-equipped places for medical and surgical treatment. This was done by American naval medical officers and should be a lasting

monument to their devotion to duty. In the smaller communities, wherever we had a Hospital Corps man, small dispensaries were established so that simple medical treatment and first aid could be given. Whenever possible the serious cases were sent to one of the larger hospitals.

Irrigation

The irrigating system in the plain of the cul de sac, outside of Port au Prince, was overhauled, old ditches were opened and banked, and a considerable amount of repair work was done to the dam and spillway of the main reservoir (Bassin General) as these were in danger of complete destruction in the event of an unusually heavy or long-continued rain. Through this work some thousands of acres of land which for years had been without irrigating water were redeemed for productive purposes. Incidentally the ditches were patroled, so that a few large landowners could not take more than their share of the water to the detriment of the smaller landholders.

42. My understanding of our mission in Haiti was that we were there to preserve order, to aid in rehabilitating the country, to help the Haitians to establish and maintain an honest and efficient government of Haiti by the Haitians, and through our fair dealings with all classes of Haitians to develop a strong feeling of friendship toward the United States.

The Crux of the Mexican Controversy—Article 27 of the Constitution of 1917

13.[1] *Art. 27.* The ownership of lands and waters comprised within the limits of the national territory is vested originally in the Nation, which has had, and has, the right to transmit title thereof to private persons, thereby constituting private property.

Private property shall not be expropriated except for reasons of public utility and by means of indemnification.

The Nation shall have at all times the right to impose on private property such limitations as the public interest may demand as well as the right to regulate the development of natural resources, which are susceptible of appropriation, in order to conserve them and equitably to distribute the public wealth. For this purpose necessary measures shall be taken to divide large landed estates to develop small landed holdings; to establish new centers of rural population with such lands and waters as may be indispensable to them; to encourage agriculture and to prevent the destruction of natural resources, and to protect property from damage detrimental to society. Settlements, hamlets situated on private property and communes which lack lands or water or do not possess them in sufficient quantities for their needs

[1] Translated by H. N. Branch. Reprinted from *The Annals* of the American Academy of Political and Social Science, Philadelphia, Pa., May, 1917, Supplement, vol. lxxi, pp. 15–19.

shall have the right to be provided with them from the adjoining properties, always having due regard for small landed holdings. Wherefore, all grants of lands made up to the present time under the decree of January 6, 1915, are connrmed. Private property acquired for the said purposes shall be considered as taken for public utility.

In the Nation is vested direct ownership of all minerals or substances which in veins, layers, masses, or beds constitute deposits whose nature is different from the components of the land, such as minerals from which metals and metalloids used for industrial purposes are extracted; beds of precious stones, rock salt and salt lakes formed directly by marine waters, products derived from the decomposition of rocks, when their exploitation requires underground work; phosphates which may be used for fertilizers; solid mineral fuels; petroleum and all hydro-carbons—solid, liquid or gaseous.

In the Nation is likewise vested the ownership of the waters of territorial seas to the extent and in the terms fixed by the law of nations; those of lakes and inlets of bays; those of interior lakes of natural formation which are directly connected with flowing waters; those of principal rivers or tributaries from the points at which there is a permanent current of water in their beds to their mouths, whether they flow to the sea or cross two or more States; those of intermittent streams which traverse two or more States in their main body; the waters of rivers, streams, or ravines, when they bound the national territory or that of the States; waters extracted from mines; and the beds and banks of the lakes and streams hereinbefore mentioned, to the extent fixed by law. Any other stream of water not comprised within the foregoing enumeration shall be considered as an integral part of the private property through which it flows; but the development of the waters when they pass from one landed property to another shall be considered of public utility and shall be subject to the provisions prescribed by the States.

In the cases to which the two foregoing paragraphs refer, the ownership of the Nation is inalienable and may not be lost by prescription; concessions shall be granted by the Federal Government to private parties or civil or commercial corporations organized under the laws of Mexico, only on condition that said resources be regularly developed, and on the further condition that the legal provisions be observed.

Legal capacity to acquire ownership of lands and waters of the nation shall be governed by the following provisions:

1. Only Mexicans by birth or naturalization and Mexican companies have the right to acquire ownership in lands, waters and their appurtenances, or to obtain concessions to develop mines, waters or mineral fuels in the Republic of Mexico. The Nation may grant the same right to foreigners, provided they agree before the Department of Foreign Affairs to be considered Mexicans in respect to such property, and accordingly not to invoke the protection of their Governments

in respect to the same, under penalty, in case of breach, of forfeiture to the Nation of property so acquired. Within a zone of 100 kilometers from the frontiers, and of 50 kilometers from the sea coast, no foreigner shall under any conditions acquire direct ownership of lands and waters.

American Kultur

14.[1] There is not a civilized nation which does not talk about its civilizing mission just as grandly as we do. The English, who really have more to boast of in this respect than anybody else, talk least about it, but the Phariseeism with which they correct and instruct other people has made them hated all over the globe. The French believe themselves the guardians of the highest and purest culture, and that the eyes of all mankind are fixed on Paris, whence they expect oracles of thought and taste. The Germans regard themselves as charged with a mission, especially to us Americans, to save us from egoism and materialism. The Russians, in their books and newspapers, talk about the civilizing mission of Russia in language that might be translated from some of the finest paragraphs in our imperialistic newspapers. The first principle of Mohammedanism is that we Christians are dogs and infidels, fit only to be enslaved or butchered by Moslems. It is a corollary that wherever Mohammedanism extends it carries, in the belief of its votaries, the highest blessings, and that the whole human race would be enormously elevated if Mohammedanism should supplant Christianity everywhere. To come, last, to Spain, the Spaniards have, for centuries, considered themselves the most zealous and self-sacrificing Christians, especially charged by the Almighty, on this account, to spread true religion and civilization over the globe. They think themselves free and noble, leaders in refinement and the sentiments of personal honor, and they despise us as sordid money-grabbers and heretics. I could bring you passages from peninsular authors of the first rank about the grand rôle of Spain and Portugal in spreading freedom and truth. Now each nation laughs at all the others when it observes these manifestations of national vanity. You may rely upon it that they are all ridiculous by virtue of these pretensions, including ourselves. The point is that each of them repudiates the standards of the others, and the outlying nations, which are to be civilized, hate all the standards of civilized men. We assume that what we like and practice, and what we think better, must come

[1] Sumner, William Graham, "The Conquest of the United States by Spain," an address delivered in 1898 and reprinted in *War and Other Essays,* pp. 303–305. New Haven, 1911. Used by permission of the Yale University Press.

Editor's Note.—William Graham Sumner (1840–1910), professor of political and social science at Yale, a biographer and economist of note, is considered today among the greatest of American sociologists. A distinguished advocate of free trade and the gold standard, Summer also became famous as a strong anti-imperialist. It would be hard to find an abler arraignment of imperialism than in the essay from which the following excerpt is taken.

as a welcome blessing to Spanish-Americans and Filipinos. This is grossly and obviously untrue. They hate our ways. They are hostile to our ideas. Our religion, language, institutions, and manners offend them. They like their own ways, and if we appear amongst them as rulers, there will be social discord in all the great departments of social interest. The most important thing which we shall inherit from the Spaniards will be the task of suppressing rebellions. If the United States takes out of the hands of Spain her mission, on the ground that Spain is not executing it well, and if this nation in its turn attempts to be school-mistress to others, it will shrivel up into the same vanity and self-conceit of which Spain now presents an example. To read our current literature one would think that we were already well on the way to it. Now, the great reason why all these enterprises which begin by saying to somebody else, We know what is good for you better than you know yourself and we are going to make you do it, are false and wrong is that they violate liberty; or, to turn the same statement into other words, the reason why liberty, of which we Americans talk so much, is a good thing is that it means leaving people to live out their own lives in their own way, while we do the same. If we believe in liberty, as an American principle, why do we not stand by it? Why are we going to throw it away to enter upon a Spanish policy of dominion and regulation?

APPENDIX I

OUTLINE OF THE ECONOMIC HISTORY OF THE UNITED STATES

PART I

EXPLORATION AND ESTABLISHMENT OF COLONIES IN NORTH AMERICA

Section A. *Economic Organization of Europe in the Fifteenth and Sixteenth Centuries*

1. Survey of agricultural and industrial development to the close of the sixteenth century.
2. Commercial expansion: Character of English-Continental trade; importance of trade with the East; early trade routes; the Levant trade; trading companies and their influence upon commercial development; the *Merchant Adventurers;* the *Muscovy* and *East India* companies; other trading companies.

Section B. *Explorations in the Fifteenth and Sixteenth Centuries*

1. Voyages of exploration: Efforts of Prince Henry of Portugal to encourage navigation; early explorations along the African coast—Bartholomew Diaz (1486-93) and Vasco da Gama (1497-98); voyages of Christopher Columbus (1492-93; 1493-96; 1498-1500; 1502-04); explorations of Vespucius and Balboa; Magellan and the circumnavigation of the globe (1519-22).

Section C. *Colonization in America*

1. Spain in America: Cortés and the conquest of Mexico (1519-21); conquest of Peru by Pizarro (1526-33); extension of Spanish power in Central and South America; Spanish activities in North America: early expeditions—Ponce de Leon (1513), Pineda (1519) and Narváez (1539); explorations of De Soto (1539-42), Fray Marcos (1539) and Coronado (1540-42); establishment of missions and military posts; development of Spanish trade—government regulation and monopoly; the *Casa de Contratación;* extent of Spanish influence in America.
2. The French in America: Explorations of Cartier (1534-35), Champlain (1615-16), Nicolet (1634), La Salle (1681-82), Joliet and Marquette (1673); distribution of French settlements; activities of Crozat (1712-17) and the Company of the West (1717); French activity in fur-trading.

3. Dutch and Swedish settlements in North America: The Dutch in America—activities of the Dutch East India Company; the West India Company; establishment of Dutch colonies; industrial and commercial prosperity of Dutch settlers; importance of the Patroon estates; capture of Dutch settlements by the British (1664). Swedish settlements along the Delaware: Founding of New Sweden (1638); capture of Swedish settlements by the Dutch (1655).
4. Reasons for the failure of Spanish, French, Dutch, and Swedish settlements in North America: Establishment of scattered trading-posts without permanent settlements; intolerance and lack of foresight on the part of home governments; desire for immediate gain; unsettled political conditions on the continent of Europe.
5. English colonization in America: Early explorations; discovery of the mainland by John and Sebastian Cabot (1497-98); explorations of Sir John Hawkins and Sir Francis Drake. Establishment of colonies in North America: Efforts of Sir Humphrey Gilbert (1583) and Sir Walter Raleigh (1585); founding of Jamestown (1607) and the Plymouth colony (1620); extension of English colonizing activity in the seventeenth century. Financing the colonies: The *chartered companies*—the Plymouth and the London companies (1606); respective spheres of operation; internal organization; privileges extended to the chartered companies. *Associations of Adventurers:* Financing colonies by private persons—the Plymouth colony (1620); associations of adventurers as colonists—the Massachusetts Bay Colony (1630). *Proprietary grants:* The Laconia grant (1623); other land grants; financing the proprietary grants. *Crown Colonies:* Displacement of proprietors and chartered companies by the Crown; administration of the Crown colonies.

Section D. *Population of the Colonies: Its Varied Elements*

1. Early settlers in America: Adventurers and fortune-seekers; free laborers and artisans; relative scarcity of free laborers; indentured servants—free-willers, criminals, political offenders, the forcefully abducted ("spirited away"), runaway apprentices and others; terms of indenture; advantages and disadvantages of indenture; "importation" of indentured servants as a business venture; negro slaves—origin of slavery in America; activity of the Dutch West India Company; the Royal African Company; colonial attempts to restrict the slave traffic. The non-English element in the population of the colonies. Estimated total population of the colonies at the close of the seventeenth century.

Section E. *Economic Pursuits of the Colonists*

1. Agriculture: Agricultural technique in the seventeenth century; methods of cultivation; use and improvement of labor-saving devices. Agriculture in the New England colonies: Climatic and soil conditions; size of individual landholdings; principal crops cultivated—maize, rye, buckwheat, wheat, oats, barley, vegetables, and apples. Agri-

culture in the middle colonies: Climatic and soil conditions; principal crops cultivated—wheat, oats, buckwheat, vegetables, and fruits. Agriculture in the southern colonies: Predominant characteristics—extensive landholdings and specialization; principal crops cultivated—tobacco (Virginia, Maryland), rice (South Carolina, Georgia), indigo (South Carolina, Georgia); other crops—wheat, vegetables, and fruits; cotton; settlements in the "west" previous to the Revolution; the Proclamation of 1763.

2. Manufacturing industries: Difficulties encountered in the establishment of manufactures—inadequacy of the labor supply, scarcity of capital, colonial policy of Great Britain, relative unprofitableness; leading manufactures—cloth and hats, shoes, and various iron products.
3. Extractive industries: The fisheries—the cod-fisheries and whaling; the lumber industry; naval stores; iron, copper, and lead; furs and skins.
4. Foreign and domestic trade of the colonies: Leading import products—linen, woolen goods and wool, spices, salt, molasses, wine and fruit, slaves; leading export products—tobacco, fish, wheat, flour, rice, naval stores, indigo, whale oil and bone, deerskins and furs, pig and bar iron, pot and pearl ashes, pickled beef, and pork; principal import and export countries; intercolonial trade.
5. Colonial shipbuilding.

Section F. *Factors Contributing to the Economic Development of the Period*

1. The means of communication: Ocean and river navigation; construction of roads; the postal system—early history.
2. Colonial money and monetary problems: Requisites of a sound monetary system; difficulties encountered in maintaining a stock of precious metals in the colonies; use of foreign coins; establishment of the Massachusetts mint; the use of staple commodities as media of exchange; difficulties encountered in the use of commodity money; the use of bills of exchange as money; credit money—introduction of bills of credit in Massachusetts (1690); issuance of bills of credit in other colonies; reasons for issuance of bills of credit—to meet extraordinary expenses, to meet current expenses, as loans to individuals; redemption and reissue of bills of credit; interest- and non-interest-bearing notes; legal-tender qualities; depreciation; laws prohibiting the further issue of credit money (the law of 1751 and its extension in 1764); land banks.
3. Colonial tariffs: Purposes of the tariff; import and export duties imposed.
4. English legislation in aid of colonial industries: Legislation to encourage the production of naval stores; reasons for this legislation; bounties on hemp, masts, tar, pitch, rosin, turpentine, and indigo (1706); preferential duties on whale oil, silk, pot and pearl ashes, iron and molasses; granting of drawbacks; encouragement of shipbuilding; prohibition of tobacco culture in England.

5. Theory and operation of the British colonial policy in America: Mercantilism—its meaning and application. Attempts to restrict industrial activity in the colonies. The Woolen Act (1699)—prohibition of exportation to foreign countries of woolen yarn, cloth and other woolen manufactures; prohibition of inter- and intra-colonial trade in articles enumerated in the law; withdrawal of import duties on English woolens. The law of 1732: Application to the beaver hat industry of the principles enunciated in the law of 1699. The law of 1750: Prohibition against erection of slitting mills, rolling mills, plating forges and "steel" furnaces. The Navigation acts of 1651 and 1660: General provisions—restrictions placed upon shipping (1651); reënactment of legislation with amendments (1660); the enumerated articles; enforcement of legislation. The Molasses Act (1733): Imposition of duties upon sugar, rum, spirits, molasses, and syrup; colonial opposition; reasons for non-enforcement.
6. The colonial policy of George III: Indifference to "rights" of colonists; attempts to enforce the Navigation and Molasses Acts; establishment of a permanent army in America; enactment of new restrictive legislation—the Sugar Act (1764) and the Stamp Act (1765); the Colonial boycott; repeal of the Stamp Act (1766); the Declaratory Act (1766); revision of the Sugar Act; the Townsend Acts (1767)—general provisions; renewal of Colonial policy of non-importation—organization of non-importation societies; effectiveness and extent of boycott; withdrawal of duties on glass, printers' colors, and paper (1770); remission of duties on tea; the Boston Tea Party (1773); coercive measures adopted by Great Britain. The Congress of 1774: the Declaration of Rights; the Continental Association—terms of association and ratification of agreement by colonial governments; enforcement of terms of the agreement. The law of 1775: Restrictions on Colonial trade; closing of Atlantic-coast fisheries.

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PART II

From the Revolutionary War to 1820

Section A. *The War of Independence*

1. Outbreak of hostilities. Declaration of Independence. Survey of important military events. Economic conditions during the war: De-

velopment of agriculture and manufactures; destruction of the fisheries; depression among tobacco and indigo growers; growth of the cotton industry; effects of the war upon commerce—extent of import and export trade; activities of privateers and the American "navy"; British depredations on the seas.

2. Financing the war: Taxation—inability of Continental Congress to levy taxes; use of government credit—issuance of paper money (bills of credit) in 1775 and the provisions for their redemption; further issues of bills of credit; state issues of paper money; general depreciation of currency; adoption of legal tender laws—opposition of creditors; partial repudiation through redemption. Private and public loans: Government loan of October, 1776—lack of public support; further bond issues; loans from foreign countries; government lottery; requisitions in money and in kind; confiscation of property of British sympathizers.
3. Conclusion of hostilities and the treaty of peace.

Section B. *Occupation of the Northwest*

1. Attitude of Great Britain toward westward expansion previous to the Revolution: Attempts to restrict colonization to the region east of the Alleghanies; reasons for this policy—to protect fur trade, to maintain friendly relations with the Indians, to prevent the creation of a separate government beyond the Alleghanies; ineffectiveness of British policy; settlements west of the Alleghanies previous to the Revolution.
2. Westward movement after the conclusion of hostilities: State claims to territory west of the Appalachian and Alleghany Mountains; transference of state claims to the federal government; the depression of 1785-86 and the westward movement; difficulties encountered by Western settlers—unsettled commercial conditions, closing of New Orleans to Western trade, apparent indifference of the American government toward the problems of the West; settlements in Tennessee, Kentucky, and Pennsylvania; the Ordinance of 1787; colonizing companies in the West; opening of the Mississippi River to Western Commerce (1795); growth of Pittsburgh as an industrial center; further interference by Spanish authorities with the Mississippi trade—closing of New Orleans as a port of entry for Western produce (1802); the Louisiana Purchase (1803).

Section C. *Economic Conditions Following the War*

1. Agriculture: Principal crops produced; changes in agricultural technique.
2. Manufactures: General survey of the conditions of the manufacturing industries; extent of foreign competition; imposition of state tariffs; effects of the depression of 1785-86; growing need for federal legislation; inability of federal government to render effective aid; adoption of the Constitution; economic interpretation of the Constitution; economic provisions of the Constitution; Federal legislation in aid of

industry; revival of prosperity; extension of the machine process and the factory system.

3. Development of commerce and shipping: Difficulties encountered in reëstablishing trade relations after the war; enforcement of British restrictions against American trade.

Section D. *European Wars: American Commerce and the War of 1812*

1. Outbreak of hostilities (1793). American Declaration of Neutrality (April, 1793). Expansion of American shipping and industry. Policy of the English and French governments toward American commerce: Confiscation of ships and cargoes; impressment of seamen. Treaty of 1794 (Jay's Treaty). The Treaty with France (1800). Continued prosperity of American commerce. The Treaty of Amiens (March, 1802)—its effect upon American commerce; renewal of hostilities (May, 1803) and the revival of American commerce. British Orders in Council (May, 1806; January, 1807; November, 1807). The Napoleonic Decrees: The Berlin Decree (November, 1806); the Milan Decree (December, 1807).
2. Attitude of the United States toward England and France: The law of April, 1806—prohibition of imports from Great Britain and the British colonies; the Embargo Act (December, 1808)—prohibition of foreign trade; effects of the embargo upon the United States—extensive unemployment, decrease in prices, disastrous effects on shipping; popular dissatisfaction over legislation; repeal of the act (March, 1809); the Non-Intercourse Act (March, 1809)—prohibition of trade with France, England and their possessions; opening of trade relations with other countries; repeal of the act (1810); British concessions to American sovereignty; the War of 1812: Immediate issues involved; effects upon commerce; the loss of American markets; decline of American shipping; increase in production of manufactured goods; the beginning of the *factory system;* decline of agriculture; close of hostilities and the treaty of peace (1814).

Section E. *Survey of Economic Conditions Following the War of 1812*

1. Increase in the production of agricultural products. Development of cotton culture; westward shift of the cotton-growing area. Disastrous effect of foreign importation upon woolen, cotton, and iron manufacturing establishments. British restrictions on American trade with the West Indies—refusal to open the West Indies to American vessels; the American navigation acts; withdrawal of British restrictions.

Section F. *Factors Contributing to the Economic Development of the Period*

1. American financial policy: Reforms recommended by Alexander Ham ilton; assumption of state debts by the federal government; banking reforms—the First United States Bank (1791-1811); general provisions of the charter; revision of the coinage system—the Coinage Act (1792); the bimetallic standard in operation; the tariff—the Act

of July 4, 1789 and subsequent amendments; the tariff of 1816; division of opinion regarding the desirability of protection; industries affected by the tariff.

2. Development of the means of communication: Private enterprise—inability of private enterprise to furnish adequate means of communication; construction of turnpikes; canal construction—number and location of early canals constructed; public enterprise—the Cumberland Road; significance of Gallatin's report (1808); inability of the government to begin work on internal improvements owing to unsettled political conditions; employment of state funds for internal improvements; inventions affecting transportation—the steamboat.
3. Early land policy of the United States: Disposition of public lands previous to 1800; competition between federal and state governments in the disposal of public lands; liberalization of the federal land policy—the laws of 1800, 1804 and 1820; the Westward Movement—from the Revolutionary War to 1820.
4. Changes in industrial technique after the Revolutionary War: The invention of the cotton gin; the iron plow and other improvements; extensive use of steam power after 1810.

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See *infra,* Chapter I, Sections 1-7; Chapter II, Sections 1-13; Chapter III, Sections 1-3; Chapter IV, Sections 1-15; Chapter V, Sections 1-12; Chapter VII, Sections, 1-2; Chapter IX, Section 9; Chapter X, Sections 1-7, 12-13, 17-19; Chapter XI, Sections 11-12; Chapter XII, Sections 1-2.

PART III

Economic Progress 1820-1837

Section A. *Agricultural and Industrial Development*

1. Agriculture: Difficulties encountered by producers of grain and live stock; effects of the English Corn Laws upon American grain exports; extension of the home market. Cotton culture: Cotton-growing in the Mississippi Valley; total production of cotton (1820-40); the domestic and foreign market. Sugar: Total production; increase in area under cultivation; sugar-growing in Louisiana. Development of tobacco culture. Agricultural progress in the Northwest: The demand for Western products; exports to the South and to the East.

2. The manufacturing industries: Revival of the textile industry; discontinuance of dumping by English manufacturers; employment of women and children in the textile mills. The iron industry: Increase in the output of iron manufactures; the types of iron goods manufactured; the use of charcoal and anthracite in the smelting process. Statistical summary of the growth of the manufacturing industries.
3. The westward movement: The federal land policy—reduction of minimum acreage sold by the government (to eighty acres in 1820); abolition of the credit system in land purchases (1820); extent of population of the Northwest (1820-40); settlements in the old Southwest; influence of mechanical inventions upon the development of the Northwest.

Section B. *Development of Trade*

1. Internal trade: Expansion of trade between Western and Eastern states; trade with the Northwest; cattle shipments to Eastern markets; New York as the receiving center for products of the West; total volume of trade in manufactures and agricultural products; the Santa Fé Trail. The coastwise trade: New York as a shipping center; statistical summary of the growth of coastwise trade. Foreign trade: Slow development from 1820 to 1830; expansion following 1830; development of shipping as a separate enterprise; improvements in the technique of shipbuilding; character of the import and export trade—1820-40.

Section C. *Factors Contributing to the Economic Development of the Period*

1. The tariff: The "American System"; provisions of the tariff of *1824*—protection on manufactures of iron, wool, lead, and glass; duties on raw wool and hemp; other duties imposed; application of the principle of minimum valuation; the tariff of *1828* (Tariff of Abominations); the Harrisburg Convention; political issues involved; provisions of the act—increased protection on iron and wool manufactures and on raw wool; other important changes in tariff schedules; extension of the principle of minimum valuation; general dissatisfaction with the tariff; tariff reductions in *1830;* the tariff of *1832*—reductions effected; South Carolina and the Nullification Ordinance; the Compromise Tariff of 1833—reductions introduced.
2. Development of the means of communication: Construction of roads; canal building—the "Anthracite tide-water canals"; completion of the Erie Canal (1825); effects of the opening of this canal upon the Northwest—reduction in transportation charges and time required to transport commodities; the Chesapeake and Delaware Canal; the Champlain Canal; Ohio, Miami and other canals in the Northwest. Introduction and development of the railroad; early use of tramways; the Baltimore and Ohio Railroad; invention of steam locomotion; introduction and operation of locomotives in the United States; railway

mileage—1830-40. The steamboat: Extensive use of the steamboat on Eastern rivers and on the Mississippi; use of the steamboat in coastwise trade and on the Great Lakes; attempts to cross the Atlantic—the *Savannah* (1819), the *Royal William* (1833); the *Great Western* and the *Sirius* (1838); establishment of regular steamship service.

3. Government aid in the construction of means of intercommunication: The federal policy—extension of the Cumberland road to Vandalia, Illinois; purchase by the government of stock in turnpike and canal companies; distribution of surplus funds of the federal government (1837); indirect aid—land grants to the states; constitutional difficulties involved in the federal policy. State policies: Sale of bonds at home and abroad; extent of internal improvements undertaken by the states; financial aid to private enterprise.
4. The labor movement: Labor conditions in America; early labor combinations; general policies adopted; influence of the early labor movement; Robert Owen and the American labor movement; labor and politics—the Workingmen's Party; reasons for the failure of the early labor movement.

Section D. *The Crisis of 1837*

1. Events leading to the crisis of 1837: Rapid growth of industry followed by over-speculation and unwarranted expansion of credit; unsettled banking conditions—political controversy over the rechartering of the Second United States Bank; state banks and the speculative mania—organization of new banks, over-issue of paper currency, unsafe investments, excessive loans and discounts; speculation in land and in internal improvements; influence of an extravagant plane of living; the Specie Circular (1836); immediate causes of the crisis—demands made by foreign creditors; partial loss of the European market to American cotton due to business depression in England; failure of many cotton-planters; spread of the depression; the period of economic recovery—partial resumption of specie payments (1838); speculations of Nicholas Biddle; renewed suspension of specie payments (1839); the National Bankruptcy Law (1841); repudiation of state debts; revival of business activity.

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PART IV

From the Crisis of 1837 to the Civil War

Section A. *Territorial Expansion*

1. Territorial acquisitions: Annexation of Texas (1845); the settlement of the Oregon dispute (1846); the war with Mexico and the annexation of Mexican territory north of the Gila and Rio Grande Rivers (1848); the Gadsden purchase (1853); importance of territorial acquisitions upon the economic development of the United States; early settlements in Utah, California, Oregon, and Kansas; agitation for free distribution of land; discoveries of gold in California; the Comstock Lode; influence of the Far West upon American history.

Section B. *Survey of Economic Progress from the Crisis of 1837 to the Civil War*

1. Development of agriculture: Agricultural development of the North—increased production of cereals; introduction of labor-saving devices—the mower and the reaper; inventions of Obed Hussey (1832) and Cyrus H. McCormick (1834); the horse-power threshing machine; effectiveness of the new machinery; shifting of the center of wheat production to Illinois, Indiana, and Wisconsin; statistical survey of the increase in corn production and in the number of hogs raised; growth of Chicago as a meat-packing center; the westward movement of agriculture. Agricultural development of the South: increase in cotton production; production of other agricultural products—wheat, corn, sugar, and tobacco; the economics of slave labor—advantages and disadvantages of slavery.
2. The manufacturing industries: The textile industry—concentration of textile mills in New England, improved methods of spinning, importance of cotton-manufacturing. The clothing industry: Establishment of the ready-made-clothing industry; standardization and sweat-shop production; invention of the sewing-machine (1846) and its influence upon the organization of the clothing industry. The iron industry: Production of pig iron in Pennsylvania and in other states; exploitation of iron-ore deposits around Lake Superior (after 1855); use of anthracite and coke in smelting and refining; the products of the iron industry; production of steel—inventions of William Kelley and Henry Bessemer. The flour and meal industry. Survey of the development of other manufacturing industries; the westward movement of manufacturing.

3. The extractive industries: Mining of coal, iron ore, copper, and gold; the discovery of petroleum in Pennsylvania (1859) and exploitation of this resource previous to 1861.
4. Foreign and domestic trade: The import and export trade; leading export products—cotton, wheat, corn, flour, provisions, and lumber; exportation of manufactures to Europe, the Orient, and to South America; leading import products—cotton, silk, and woolen goods, iron manufactures, coffee, tea, and sugar; centers of the export and import trade; export centers—New Orleans, New York, Mobile, Savannah, and Charleston; import centers—New York, Boston, and New Orleans. Growth of American shipping—1840 to 1861; improvements in ship construction; total tonnage of the merchant marine. Coastwise trade: Inadequacy of statistical information; increase in tonnage and the volume of trade along the Atlantic coast. Trade on the Great Lakes and through the Erie Canal: Shipments of grain, cereals, and flour; increase in shipping tonnage on the Great Lakes; importance of Chicago as a grain center. Development of other channels of trade: Trade along the Mississippi River; extent of trade from the East to the Northwest and from the East to the South; establishment of trade relations with the Far West.

Section C. *Factors Contributing to the Economic Development of the Period*

1. Revision of the coinage law and regulation of banking: The Coinage Law of 1853; regulation of banking—the Suffolk banking system and the New York Safety Fund and free banking systems.
2. Tariff legislation: Revision of the tariff (1842)—reëstablishment of high protective duties: the tariff of *1846*—protective and revenue features; the tariffs of *1857* and *1861*.
3. Development of the means of communication: Railway construction —extension of railway mileage after 1845; construction of "trunk lines"; railway construction in the Northwest; land grants to the railways; consolidation of railway lines; improvements in railway equipment; effects of the building of new lines upon domestic industry. Establishment of the express service—Harnsden's express, the American and Adams Express Companies, the Wells, Fargo & Company Express; overland express service; the Pony express; Western stage and freight companies. Improvements in Transatlantic service—the clipper ship, establishment of regular Transatlantic steamship lines; government subsidies; construction of ships. The telegraph: Morse and the invention of the telegraph; establishment of telegraphic communication between Baltimore and Washington (1844); completion of the first trans-continental telegraph.
4. Revival of the labor movement: Groups of labor affected; influence of the labor movement upon labor conditions in 1840.

Section D. *The Crisis of 1857*

1. Causes of the crisis: Overspeculation brought on by a large gold supply and extravagant land grants; failure of the Ohio Life Insurance and

Trust Company (August 1857); other business failures; effects of the panic; extent of the industrial depression following the financial panic. Revival of prosperity.

References:

Bogart, 176-188; 222-236; 243-250; 277-305.
Coman, 232-312.
Dewey, 248-268.
Faulkner, Chapters IX-XV. Select sections dealing with topics indicated above.
Jennings, Select sections dealing with topics indicated above.
Taussig, 112-154.
Van Metre, 323-389.
See *infra*, Chapter VI, Sections 4-5, 7-12, 15-20; Chapter VII, Sections 1, 3-11; Chapter VIII, Sections 10-13; Chapter IX, Sections 4-5, 7-8, 13-20; Chapter X, Sections 8, 11, 23-35; Chapter XI, Sections 1-3, 5-7, 10, 13-17; Chapter XII, Sections 3-16.

PART V

The Civil War to the Crisis of 1873

Section A. *The Civil War*

1. Issues involved: The right of secession and the extension of slavery—agitation for and against slavery; the tariff and the federal land policy.
2. Survey of economic and social conditions in the South preceding the war: The plantation system in operation; comparison of wealth produced in the Northern and Southern states; inadequate banking and transportation facilities; relative unimportance of manufactures; inefficiency of the labor supply; backwardness of the educational system; slow relative growth in population.
3. Economic aspects of the Civil War: Industrial conditions in the North; depression in the Northern states following the outbreak of hostilities; revival of industrial prosperity—growth of manufacturing industries; difficulties encountered by cotton manufacturers; increased demand for manufactured goods; production of war materials. Agriculture in the North during the war: Increased production of agricultural products. Extent of the import and export trade. Rapid decline of the merchant marine. Scarcity of the labor supply and the introduction of labor-saving devices. Industrial conditions in the South; effect of the blockade upon Southern industry; difficulties encountered in the production of war materials; lack of adequate transportation facilities; effect of the war on cotton culture and the market for cotton.
4. Financial administration of the Civil War: Financial policies of the Union; unwillingness to obtain revenue through direct taxation; use of government credit—issuance of paper money (the greenbacks); issuance of treasury notes; introduction of moderate internal duties; revision of the tariff; the income tax; sale of government bonds; revision

of the financial policy after 1864—renewal of effort to obtain revenue through direct taxation; over-issue and depreciation of paper money; suspension of specie payments (1861); establishment of a gold market in New York; general rise in prices. The tariff: The Act of *1862*—compensatory nature of the rates; the tariff of *1864*—important changes introduced.

5. Revision of the federal land policy: The Homestead Act (1862)—efforts to revise the federal land policy previous to 1862; provisions of the law of 1862.
6. Adoption of the National Banking System: The laws of 1863 and 1864; reasons for the establishment of the National Banking System—to provide a market for government bonds and to introduce a unified bank-note currency; general provisions of the law—organization of national banks, issuance of bond-secured notes; disappearance of notes issued by state chartered banks—taxation of state-bank notes (1865); advantages and defects of the new banking system.

Section B. *Conclusion of Hostilities and the Period of Reconstruction*

1. Return of normal conditions in the North: Increase in the production of wheat and corn; improvement in agricultural technique; growth of the manufacturing industries; development of mining—extent of exploitation of coal, iron, and petroleum deposits. Statistical summary of the growth of industry from the Civil War to 1873.
2. Reconstruction in the South: The problem of the emancipated slave; "carpet baggers" and "scallawags"; obstacles encountered in reconstruction; difficulties involved in reorganizing the plantation system; introduction of tenant farming; cotton culture following the war.

Section C. *Factors Contributing to the Economic Development of the Period*

1. Tariff policy after the Civil War—continuance of high protective tariffs.
2. Railway construction: Increase in railway mileage; shift of the center of railway construction to the territory west of the Mississippi River; the trans-continental railways—agitation for a trans-continental railway previous to the Civil War; chartering of the Union Pacific and Central Pacific Railway Companies; completion of the first trans-continental railway; other contemplated railways; unification of railway lines; organization of through freight lines; improvement in railway equipment—the steel rail (1862), the Pullman sleeping-car (1864), the Westinghouse air-brake (1868) and the Westinghouse automatic brake (1872); decrease in railway earnings; railway competition—rate wars (1869-70) and rate discriminations; opposition of farmers to high rates—the Granger movement, organization of Patrons of Husbandry (1867); coöperative marketing and the Granger movement; influence of the Granges in reducing excessive railway rates.
3. The labor movement: Influence of the Civil War on labor; growth of existing labor organizations; formation of new unions—the Brother-

hood of Locomotive Engineers (1863); the Cigar Makers' National Union (1863); the Bricklayers' and Masons' International Union (1865); The National Labor Union (1866); the Knights of St. Crispin; the Order of Railway Conductors (1867); national labor union conventions (1866, 1867 and 1868); the Noble Order of the Knights of Labor (1869). The demands of labor: The eight-hour day, improvements in working conditions and the abolition of child labor.

Section D. *The Crisis of 1873*

1. Causes of the crisis: General over-capitalization of business; attempt to corner the gold supply (1869); railway speculation—the Crédit Mobilier and other speculative ventures; excessive importation previous to 1873 and heavy investment by foreigners in American railway securities. Immediate causes of the depression: Unloading of securities in the American market; difficulties encountered in obtaining loans; the failure of Jay Cooke & Co.; extent of bank and business failures; closing of the New York Stock Exchange; effects of the crisis upon the industrial life of the nation; the period of industrial revival.

References:

Bogart, 306-326, 348-361; 407-423; 472-487.
Dewey, 331-372.
Faulkner, Chapters XVI and XVII. Select sections in Chapters XVIII and XXV dealing with topics indicated above.
Jennings, Select sections dealing with topics indicated above.
Taussig, 155-229.
Van Metre, 390-411.
See *infra,* Chapter XII, Sections 17-42; Chapter XIII, Sections 1-3; Chapter XVI, Sections 1-3; Chapter XVII, Sections 1, 4; Chapter XVIII, Section 1.

PART VI

From the Crisis of 1873 to the Crisis of 1893

Section A. *General Characteristics of the Period*

1. Development of agriculture: Agriculture in the North; investment of capital in agriculture; extensive use of machinery; relative decline in individual landholdings; increased production of farm products; wheat-growing—statistical survey of the production of wheat; bonanza farming; invention of the combined harvester and thresher (1885); use of the roller process in flour-making; relative importance of other cereals; construction of grain elevators and other devices for handling grain; Chicago as the grain center of the world; exportation of wheat and other agricultural products; increase in live-stock raising and the development of the meat-packing industry; improved methods of handling crops; introduction of the machine process in the dairy

industry. Agriculture in the South: Increase in the cotton crop; extension of tenant farming.

2. The westward movement: Growth in population west of the Mississippi; introduction of cattle-raising on the plains east of the Rockies; disappearance of the ranchers' frontier; the Homestead Act and the settlement of the Far West; the agrarian unrest of the 'nineties; significance of the disappearance of the frontier.
3. The manufacturing industries: Introduction of large-scale production; increased value of manufactures; increase in the size of the individual plant; the iron and steel industry; the open-hearth process. The boot-and-shoe industry. Distribution of manufacturing industries; extent of concentration of manufactures in New England and the middle Atlantic states; manufactures in the Central states; industrial development of the West—smelting of copper, lead, and other metals; flour-milling; canning of fruit, vegetables, and fish. Manufactures in the Southern states: Relative unimportance of manufactures: the growing importance of the iron and steel industry; growth in the output of cotton manufactures in the South.
4. Industrial combinations: Forms of industrial combinations—pools; organization of the Anthracite Coal Pool (1872); other examples of this form of organization—the Gunpowder Pool (1872), the Western Export Association, the Steel Rail Pool (1887), the Addyston Pipe Pool (1894) and the Southern Railway and Steamship Association (1875). Trusts: General characteristics of the early trusts; the Standard Oil Company of Ohio (1870); the Standard Oil Trust (1879); the Cattle Feeders' and Distillers' Trust (1887); the Sugar Trust (1887); the National Lead Trust (1887); other examples of the trust. Holding companies: Principal characteristics; legality of the holding company; state laws and the holding companies.
5. Exploitation of natural resources: Coal and coke burning in Pennsylvania, in the Central and Southern states; production of iron ore—exploitation of "Lake Superior ores"; copper-mining in Michigan, Montana, and Arizona; petroleum mining—discovery of new sources of supply in southern California, in Ohio, and in Indiana; products of the forest; lumbering in Michigan, Minnesota and the Pacific states; the yellow-pine belt of the South.
6. Development of foreign trade: Exportation of domestic products—cotton and grain, semi-manufactured goods; the excess of exports over imports (after 1862); character of the import trade—relative decline in importation of finished products, increase in importation of raw materials and semi-manufactured goods; importance of Europe in the import and export trade; importation and exportation from South America and Asia.
7. The American merchant marine: Decline of the American merchant marine—principal causes; ship subsidies (1872 and 1891).
8. The panic of 1893.

Section B. *Factors Contributing to the Economic Development of the Period*

1. Reform of the currency: Attempts to redeem the greenbacks—recommendations of Secretary McCulloch; provisions for the gradual retirement of the notes (Act of April, 1866); repeal of this Act (February, 1868); reissue of part of the notes redeemed under the Act of 1866; attempts to increase the note issue (1874); the Resumption Act (January, 1875)—general provisions; the Act of 1878; the Silver Purchase Act (1878)—the Bland-Allison Act; purchase and coinage of silver and the issuance of silver certificates; the Sherman Silver Purchase Act (1890)—Sherman notes and the "endless chain."
2. The tariff: Reduction in tariff schedules (1872); appointment and recommendations of the tariff commission of 1882; the McKinley Tariff (1890).
3. Development of the means of communication: Decline in railway construction following the crisis of 1873; industrial revival and renewed railway activity; completion of the great trans-continental railways; statistical summary of mileage constructed (1873-1893); improvements in railway equipment.
4. Government regulation of industry: Attempts to maintain competition and to regulate prices; state regulation; federal legislation—the Act to Regulate Commerce (1887); establishment of the Interstate Commerce Commission—general functions; the Sherman Anti-Trust Law (1890).
5. Changes in industrial technique: Introduction of electricity as an illuminant and as motive power; use of electricity in electro-plating and for the telegraph; the electric arc lamp (1879); the incandescent electric lamp (1880); the electric railway; the automobile (1892).
6. The labor movement: General condition of labor; influence of the Knights of Labor in the 'eighties; policies advocated by the Knights of Labor; establishment of a federal Bureau of Labor (1883); the anti-contract labor law (1885); enactment of state legislation; the Knights of Industry and the Amalgamated Labor Union; the Federation of Organized Trades and Labor Unions of the United States and Canada; the American Federation of Labor (1886)—a federation of craft (trade) unions.

References:

Coman, 313-319.

Dewey, 383-463.

Faulkner, Chapters XIX-XXVI. Select sections dealing with topics indicated above.

Jennings, Select sections dealing with topics indicated above.

Taussig, 230-283.

Van Metre, 415-498.

See *infra*, Chapter XIII, Sections 1-3, 6-9, 14; Chapter XIV, Sections 1, 11; Chapter XV, Sections 1, 3-8, 21; Chapter XVI, Sections 4-10; Chapter XVII, Sections 1-5, 9; Chapter XVIII, Sections 2-4, 11-18.

PART VII

From the Crisis of 1893 to the Outbreak of the World War

Section A. *Survey of Economic Progress—1893-1914*

1. Development of agriculture: Shift in population from the rural districts; decline of agricultural production relative to the growth in population; introduction of improved agricultural machinery; improvements in living conditions in the rural districts. Statistical summary of the principal agricultural crops. Gradual disappearance of the frontier; participation of Western agricultural regions in national politics; opposition of the Middle West to monopolistic control exercised by the railways and other monopolies.
2. Development of the manufacturing industries: Increase in the production of iron and steel manufactures; the automobile industry; other industries—electrical appliances, rubber goods and cement. Large-scale production and concentration in industry; movement of population to urban communities; immigration as a source of labor supply.
3. Revival of industrial combinations: Holding companies, mergers and interlocking directorates; examples of industrial combinations—the American Tobacco Company, the International Harvester Company, the Beef Trust, the United States Steel Corporation; railway combinations; effect upon railway combinations of the court decisions in the Trans-Missouri Freight Association Case (1897) and the Joint Traffic Association Case (1898); railway consolidations in New England; the Pennsylvania Railroad Company; the Northern Securities Company. The Money Trust.
4. Foreign trade and shipping: Increase in exports; excess of exports over imports; exportation of manufactures and of cotton; relative increase in imports of raw materials; growth of trade with South America, Africa, and Asia; the American merchant marine—revival of agitation for government subsidies; introduction and defeat of the subsidy bill of 1911; attempts to introduce discrimination in favor of American shipping. Economic imperialism.

Section B. *Factors Contributing to the Economic Development of the Period*

1. Reform of the currency and banking: Repeal of the Sherman Silver Purchase Act; the law of June, 1898—retirement of legal-tender notes of 1890 and coinage of silver previously purchased; the law of 1890—provisions for the redemption of greenbacks. Banking reforms: Defects of the national banking system; the panic of 1907 and subsequent reforms; the specie shortage—issuance of clearing-house loan certificates; the Aldrich-Vreeland Emergency Currency Law (1908)—provisions for the issuance of emergency currency and appointment of a national monetary commission; recommendations of the commission. The Federal Reserve System: The Federal Reserve Act; crea-

tion of a Federal Reserve Board and twelve Federal Reserve Banks; membership in the system; operation of the system. The Federal Land Banks; the Farm Loan Associations; Joint Stock Land Banks.

2. The tariff: The Dingley Tariff (*1897*)—duties on manufactures of cotton, wool, silk, linens, and leather, duties on iron and steel products, on hides, raw sugar, lumber and farm products; the Payne-Aldrich Act (*1909*)—reduction of duties; the Underwood Tariff (*1913*)—extension of free list and income tax provisions of the act.
3. Development of the means of communication: Additions to the railway mileage; improvement in railway equipment—manufacture of steel cars and improvement in heating and lighting facilities; other significant changes in the passenger and freight service; electric railways—introduction of the electric railway (1888), construction of interurban lines and electrification of the railways; improvement of the highways—construction of roads by states, counties, and cities; federal aid in highway construction; inland water transportation; federal appropriation for river and harbor improvements; the Panama Canal; the New York Barge Canal; regulation of the railways—the Mann-Elkins Act (1910); the telephone and the wireless; invention and progress in the use of airplanes; the transmission of electric power.
4. Government regulation of industry: The Sherman law in operation—investigations of the Bureau of Corporations; enforcement of the law—dissolution of the Addyston Pipe Company (1899) and the Northern Securities Company (1904); dissolution of the Standard Oil Company (1911), the American Tobacco Company (1911), the Union Pacific-Southern Pacific Railroad combination and the New Haven Railroad combination (1912); state regulation of public utilities; creation of the Industrial Relations Commission (1912); the Federal Trade Commission—transference of powers of the Bureau of Corporations to the Federal Trade Commission; the Clayton Act (1914)—provisions restricting unfair competition; the Webb Act (1918)—organization of associations in the export trade.
5. The conservation movement: Reforestation program; reclamation of arid lands; establishment of the Department of Agriculture (1889); the Roosevelt administration and the conservation movement; the work of Gifford Pinchot; appointment of the Public Lands Commission (1903); the Inland Waterways Commission (1907); the National Conservation Commission; the Reclamation Act (1902); the Country Life Commission; scope and accomplishments of the national conservation movement. Steps taken to introduce industrial efficiency; scientific management—the Taylor System; the conservation of humanity; recent social legislation.
6. The labor movement: Growth in the membership and influence of the American Federation of Labor; policies adopted by the American Federation of Labor; the Amalgamated Clothing Workers; industrial unionism—the United Mine Workers of America; the Industrial Workers of the World (I. W. W.); accomplishments of the American

labor movement; organized opposition to labor combinations—employers' associations; the attitude of the courts.

References:

Bogart, 488-539.
Coman, 319-335, 375-413.
Dewey, 463-516.
Faulkner, Chapters XIX-XXVI. Select sections dealing with topics indicated above.
Jennings, 219-239.
Taussig, 284-446.
Van Metre, 501-589.
See *infra,* Chapter XIII, Sections 1-3, 5, 10-12; Chapter XIV, Sections 2-10, 12-13, 19-21; Chapter XV, Sections 2-9, 17-19, 21; Chapter XVI, Sections 10-11; Chapter XVII, Sections 6, 12; Chapter XVIII, Sections 2-4, 8-9, 18-19, 21, 24, 26-27; Chapter XIX, Sections 3-6.

PART VIII

From the Outbreak of the World War to 1928

Section A. *The European War and Its Relation to America*

1. Temporary closing of the New York Stock Exchange; issuance of emergency currency under the terms of the Aldrich-Vreeland Act.
2. Survey of economic conditions: Effects of the war upon American agriculture; statistical summary of the production of agricultural products; revival of the cotton industry following the crisis of 1914. Increased output of the mines. Increase in the quantity of manufactured goods; establishment of new industries—dyestuffs and dyes, potash, chemicals, scientific instruments. Exportation and importation of goods; character of the export trade; increase in the importation of raw materials from South America and the Orient; the shift from a debtor to a creditor nation; attempts to overcome the shipping shortage —withdrawal of restrictions regarding the registration of foreign built vessels; the Shipping Act of September, 1916—establishment of the Shipping Board.

Section B. *Entrance of the United States into the World War*

1. Changes in economic organization necessitated by the declaration of war: Organization of the Emergency Fleet Corporation (April 17, 1917); the Food Administration—the United States Grain Corporation and the Sugar Equalization Board; the Fuel Administration; the Railroad Administration; the War Finance Corporation; the War Industries Board; the Capital Issues Committee of the Federal Reserve Board; the War Labor Board; the Espionage Act—its provisions for the control of the export trade; the Trading with the Enemy Act; financial mobilization—increase in income tax rates, the excess profits

tax and various excise duties and government loans. Estimate of the effectiveness of the war time administration.

Section C. *The Period of Reconstruction Following the War*

1. Labor difficulties following the war: Strikes in the New York Clothing trades; the textile workers' strike; the steel strike of 1919; other labor troubles; agitation favoring government ownership; the open shop movement; the National Industrial Council (October, 1919)—failure of the conference; the Second National Industrial Council (December, 1919); recommendations of the Council—creation of shop committees and the establishment of a national industrial board and of regional conferences and boards of inquiry; the Kansas Court of Industrial Relations (1920)—an experiment in the adjudication of labor disputes; the non-partisan movement in the Northwest; organization of the Farmer-Labor Party (1920); importance of personnel management in improving the relations of capital and labor; recent social legislation affecting the wage-earner; the present status of the labor movement in the United States.
2. Agriculture since the war: Failure of the agricultural West to respond to the economic revival following the depression of 1920 and 1921; influence upon agriculture of a contracted market and of low prices; importance of motor transportation to the agricultural regions of the United States; widespread use of motor-driven farm implements; efforts to revive agriculture through legislation—the proposed tariff on agricultural products; extension of agricultural credit facilities and improved methods of marketing agricultural products.
3. Commerce since 1918: Commercial rivalries following the war; present position of the United States in world trade; character of the import and export trade; the United States as a creditor nation; economic imperialism—the penetration of American capital abroad and the development of markets; struggle for the control of natural resources—primarily oil; present status of the American merchant marine.
4. The manufacturing industries following the war: Deflation and industrial depression; contraction of foreign and domestic markets; effects upon industry of the depression of 1920 and 1921; revival of industrial consolidations—the principal industries affected; present status of anti-trust legislation—the "attitude" of the Federal Trade Commission; extensive introduction of electricity in the manufacturing industries—the importance of super-power in the present organization of American industry; the tariff and the manufacturing industries.
5. Development of transportation facilities: The Transportation Act of 1920; the Merchant Marine Act (1920); construction and improvement of railway lines; new water routes projected; development of motor transportation; the airplane as a factor in commercial transportation.

6. Finance: Financial problems following the war; the "burden" of the war debts; reparations as a problem affecting American finance; operation of the Federal Reserve System since 1920; financial concentration in recent years; consolidation of banks—branch banking in the United States.
7. Exploitation of natural resources: The forest and mineral resources of the United States; the oil deposits and national politics.

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See *infra,* Chapter XIII, Sections 4-5, 13, 15; Chapter XIV, Sections 14-18, 20-22; Chapter XV, Sections 10-18, 20; Chapter XVI, Sections 10, 12-16; Chapter XVII, Sections 6-8, 10-11, 13-16; Chapter XVIII, Sections 5-7, 10-11, 19-20, 22-31; Chapter XIX, Sections 1-3, 7-14.

Note.—The student should consult additional references in Appendix II.

APPENDIX II

General Works of Reference

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